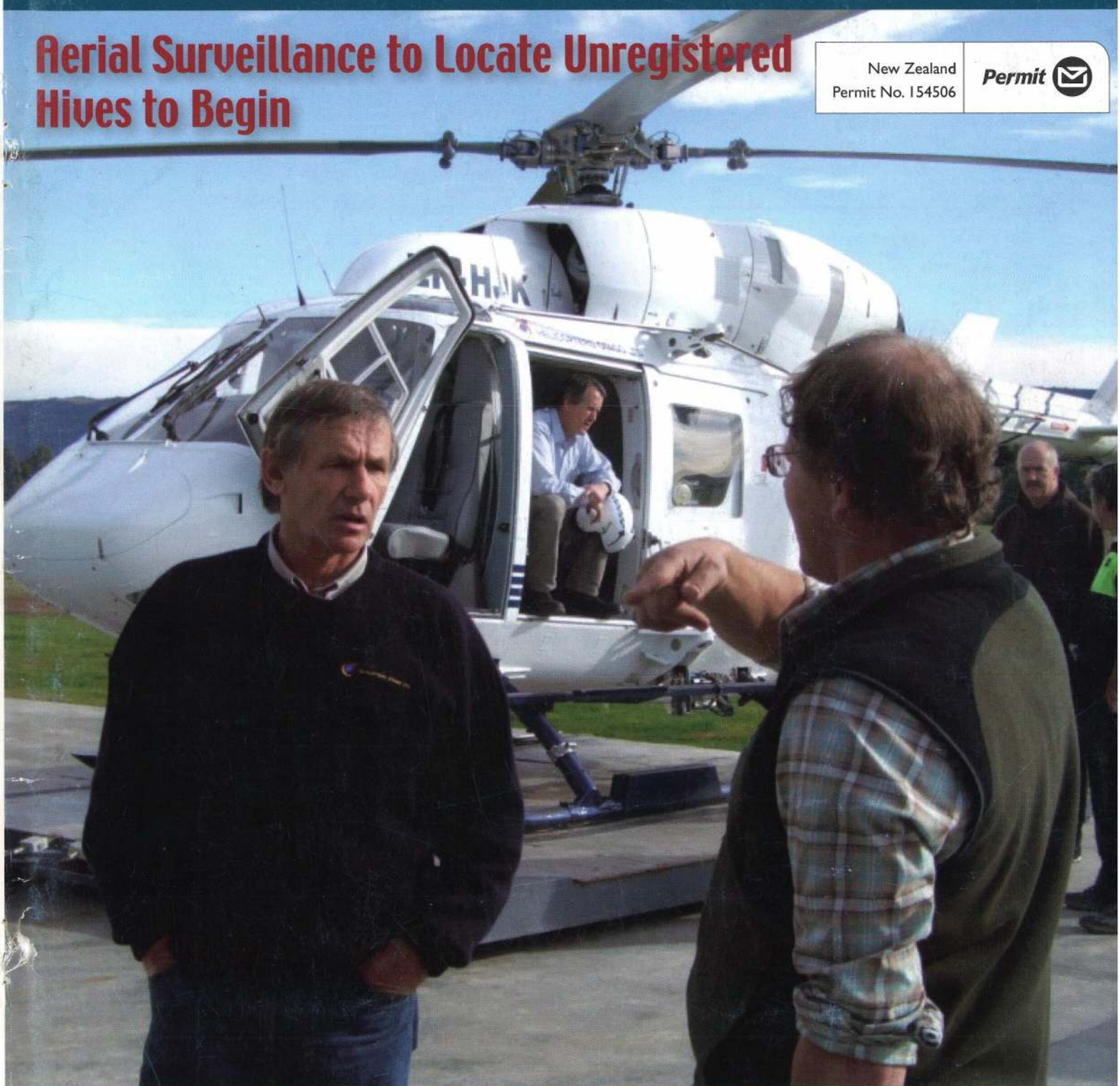
Volume 15 No. 9

October 2007

The New Zealand BeeKeeper

Aerial Surveillance to Locate Unregistered Hives to Begin

New Zealand
Permit No. 154506
Permit



NBA President Frans Laas discusses surveillance options with pilot Graeme Gale. Photo: Rex Baynes.

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President's Report

Honey imports

At the time of writing this report the Court of Appeal judges have not come to a decision on our case against the importation of Australian honey. It has now been two months since the case was presented, which seems to indicate that the judges are possibly having some difficulty in coming to a consensus.

The NBA has for some time been pressuring our Government officials to allow the export of honey into French Polynesia. NZFSA officials have recently met with their counterparts in Tahiti to discuss these issues. Their argument for not allowing honey imports into French Polynesia from New Zealand was that they are officially free from AFB; we are not. Even though our honey is highly unlikely to carry detectable spore loadings and is not likely to be able to cause disease, the mere presence of the disease is sufficient cause. Since we are trying to stop honey imports into this country from Australia which has EFB and we don't, then we are obliged to accept the French Polynesian position.

The New Zealand Government is hell-bent on free trade at any cost and is behaving in a somewhat inconsistent manner. They accept the French Polynesian position while at the same time rejecting the same position taken by our organisation. There is no absolute guarantee that honey imports from Australia will be free of EFB bacteria, despite heat treatment or imports from Western Australia. These imports will also bring in two other unwanted organisms: *Paenibacillus alvei* and AFB. We are steadily making progress in eliminating AFB from this country with a well-designed programme, yet our Government is quite happy to allow the importation of the same organism.

During my recent visit to the Commonwealth Scientific and Industrial Research Organisation (CSIRO) in Canberra, an Australian government official declared that EFB was not present in Western Australia. This statement was based on just *four* samples. The same dataset also indicated that not all samples from a considerably larger survey taken from areas where EFB was endemic had *Melissococcus pluton*. Anyone with basic statistical knowledge would know that making these sorts of assumptions based on this sampling methodology is delving into dangerous territory. Can we really believe what we are being told?

Colony Collapse Disorder

While in Australia for Apimondia, new developments regarding CCD were announced. A virus known as Israeli Acute Paralysis Virus (IAPV) was associated with hives that had collapsed. The virus was also found in samples from package bees from Australia. The usual media frenzy began and reported that the Aussies were to blame, etc. Understandably the Australians were rather upset.

At Apimondia experts in the field presented a short seminar about current thinking and knowledge on the subject, followed by a roundtable discussion. Clearly there was some tension between the Americans and the Australians. After a civilised discussion between Jeff Pettis (USA) and Denis Anderson (Australia) it became apparent that things were not as simple as IAPV and Australian bee packages. The virus was identified in a high proportion of CCD hives, but not all. Denis also pointed out that IAPV is closely associated with Kashmir Bee Virus (KBV) and showed some evidence that indicates that IAPV may be a form of KBV. The fact that not all hives exhibiting CCD had the virus indicates that IAPV is unlikely to be the cause.

As Denis Anderson pointed out to Russell Berry during question time, we have KBV in New Zealand; therefore by association we also have IAPV in New Zealand. Viruses only manifest themselves when other stressors are involved, so high levels of viruses may only be symptomatic of the problem, not the cause. By the end of the session we were still no wiser as to the actual cause of CCD except that the problem is multifactorial. CCD-like deaths of bees are beginning to appear in Turkey as well.

An interesting point to note about virus epidemiology in the presence of varroa: during the initial period of invasion by varroa, bee colonies were far more tolerant of virus loadings than they are now. It appears that mite populations as low as 1800 mites may now be sufficient to allow virus loadings to increase to critical levels, leading to colony death. There appears to have been some adaptation by the viruses themselves. Keep your mite populations low and these sorts of problems should not show up.

While there is a considerable lack of knowledge about the cause of CCD, the importation of all bee products should be reviewed as a precautionary approach.

Nosema ceranae

During the IHS (Import Health Standard) process for the importation of Australian honey into New Zealand, the Government declared that there were no unusually virulent strains of nosema in existence. Quite clearly they were wrong, as it was pointed out to them that *Nosema ceranae* existed and had been reported previously. They said that *N. ceranae* did not exist in Australia because the Australians had no record of it—how arrogant. Interestingly the Australians are just now beginning to look for whether this organism actually exists in that country. If you don't look for it, how can you then say it doesn't exist?

The *Apis cerana* incursion around Cairns seems to have spread a bit further than they had hoped with at least four swarms found, and they are busy trying to find any other swarms that may be present and eradicate them. It can be then assumed that *Nosema ceranae* is in those swarms and has most likely spread into the *A. mellifera* population. Can Australia now state absolute freedom from *N. ceranae*?

During the search for the causes of CCD, the American researchers tested some archival samples and found that *N. ceranae* was present in the USA in 1995, one year before the identification of the species was announced. This organism has also been associated with CCD, so we need to get more current information. Do we have it in this country? Someone should be looking.

New Executive member

Maureen Maxwell has been nominated by the Auckland/ Northland Ward to replace Brian Alexander who resigned immediately after conference. The members of the Executive Council have approved their nomination and have appointed Maureen to the Executive Council.

Welcome aboard, Maureen.

Next month I will report on some more aspects of Apimondia.

- Frans Laas

Executive Secretary's report

2007 is going by so fast and before we know it I will be sending out the 2008 subscription notices. There is a new subscription structure in place for 2008, which you will find on page 11 of this issue.

It has been another busy year for the Secretariat with plenty to do. Welcome to all the new members who have joined us during the year. The more members we have, the more your Executive Council can do for the betterment of beekeeping for all New Zealand beekeepers.

The revised edition of the AFB manual *Elimination of American foulbrood without the use of drugs — a practical manual for beekeepers* has been selling well, with a special price for members. Should you want to purchase a copy you will find an order form on the NBA website (http://www.nba.org.nz/Sections-article60-p1.htm). The manual costs $20 plus $1 postage for members, and $25 plus $1 postage for non-members.

During 2007 the Secretariat changed the way we handle subscriptions to *The New Zealand BeeKeeper* journal. If you are joining the NBA during the year the cost is now on a pro rata basis. This change has enabled us to run all NBA finances on a calendar financial year (i.e., 1 January to 31 December). This now means that all subscriptions are due for renewal in January, rather than having subs coming due during the year. This change is working well and will be continued through the 2008 financial year.

If you are not already a member of the NBA we encourage you to consider joining. Please do not hesitate to contact me for further information. While I am not always in the office (I work part-time for the NBA), I will attend to your enquiry as soon as possible.

From time to time we send information out to NBA members, but with New Zealand's new Unsolicited Electronic Messages Act it means that we now have to give our members the option of not receiving information via the email system. If you do not want to receive any info from us, please email me at secretary@nba.org.nz and let me know. If you are happy to continue to receive updates from the secretariat and Executive Council, you do not need to do anything.

- Pam Edwards

Deadline for articles and advertising

10th of each month for insertion in the following month

NB: No magazine in January

See page two for contact details.

- AUTUMN TREATMENTS -

Due to a dramatic increase in usage of Apivar® this Spring, we were unable to supply some large orders due to timing.
If you are planning to use large quantities of Apivar® this Autumn – please assist us by placing your tentative order by 1st November, thereby guaranteeing your supply.

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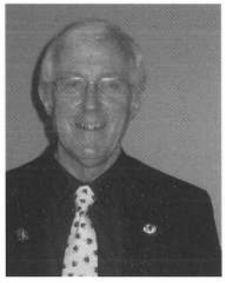
Chief Executive Officer's report

Colony Collapse Disorder (CCD)



The news of the moment is the finding that Israeli Acute Paralysis Virus (IAPV) may be the cause, or at least a major cause of CCD, which has wreaked havoc across North American beekeeping. This news builds on my report last month when I outlined the current USDA research into the possible causes of CCD.

The NBA has expressed its continuing concern that CCD may enter the country and cause further problems to beekeeping and the industries to which we provide pollination services. Our AGM resolved that the Government be requested to protect us from this real threat. That request is now reinforced by this new finding about CCD.

Apimondia

As I write this, many of our members are attending Apimondia in Melbourne. We have been fortunate to receive a number of visiting beekeepers en route to Apimondia. These visits always provide opportunities to share and learn more about beekeeping practices.

The Apimondia programme looks really interesting and no doubt will be reported on in the next issue of *The New Zealand BeeKeeper.*

Research

We are continuing to support research projects that will benefit all beekeepers. To continue this research, we do need your financial support. We have received increasing support from beekeepers and are now looking to target these contributions to specific projects. We will also develop a general research fund so that we have reserves ahead of each project, rather than having to rush around to find financial support when a new project is being developed.

A good example is the second phase of the varroa research now underway with Dr Mark Goodwin and his colleagues. As I reported last month, the population of varroa-resistant bees will soon be moved to Mercury Island (opposite the Coromandel Peninsula) to establish and maintain a genetic base that can then supply queens to industry members. This is an exciting time in the fight against varroa. It is just one of the benefits from the first phase of the work to develop new technologies to control varroa.

We have also been looking at another project to provide a genetic-based test to enable beekeepers to determine whether the varroa in their hives are becoming resistant to the treatments being used. The research proposes to follow a similar study that developed a test for resistant aphids. This is a good example of research where we need funding, but have yet to raise sufficient funds to get the research started.

We are continuing to look at identifying specific characteristics of honey that can be used to promote our products into specific markets. A current example of this is the Glycaemic Index, or GI (see http://glycemicindex.otago.ac.nz/) and its value in a number of dietary applications. We need financial support for research into the GI values of different honeys.

Marketing

We are still hearing of cases of misrepresentation of New Zealand honey in export markets. The last thing we want is foreign product masquerading as New Zealand honey. To protect our reputation and preserve our markets, we are developing a New Zealand brand backed with an effective quality assurance programme.

New Executive member

We welcome Maureen Maxwell from BeesOnline Limited, Waimauku, Auckland, who has appointed by the Executive Council to replace Brian Alexander. You can read more about Maureen's enterprise at http://www.beesonline.co.nz. Maureen's development of specialty products and her marketing skills will be valuable to the NBA Executive Council.

- Jim Edwards
Chief Executive Officer

Maureen Maxwell, new NBA Executive member

A seasoned entrepreneur, Maureen brings energy, enthusiasm and marketing skills to the NBA Executive.

With a background in architecture and design and 30 years in the wine and food sector, Maureen sees the honey industry from outside the square.

Born and bred in Auckland, but well travelled, her international passion for clean green New Zealand produce is acknowledged and respected worldwide.

An executive member of the NZ Wine & Food Tourism Network and the Sustainable Business Network, Maureen is a great champion for New Zealand beekeepers, New Zealand bees, their hive products and our native environment.

Her interest in honey started with one hive in the back paddock in 1999 and has grown to the award winning BeesOnline Honey Centre & Café, based at Waimauku, 30 minutes northwest of Auckland's CBD. www.beesonline.co.nz.

Bee Products Standards Council

The Bee Products Standards Council (BPSC) met at the end of September to review current issues, including the findings of a recent compliance audit of the implementation of Risk Management Programmes. You can read more about these findings in a report from the New Zealand Food Safety Authority on page 15 of this issue.

It is useful to review what is driving the demands for the increasing regulation of our industry. This is common to all industries providing food for human consumption and/or international trade.

The world's population has become increasingly urbanised over the last 100 years. The massive shift from rural living to city life means that people no longer harvest their own food. Urban dwellers have lost contact with their rural background and how products are prepared. Urbanisation has led to growing affluence, with people more able to afford to make a choice when making their purchase decisions.

Consumers now depend on buying food products from a shop and when they purchase, they make the assumption that the products are safe and of good quality. This has led the supermarket chains to demand increasing standards of quality on behalf of their customers and in turn, Government regulators in importing countries have reinforced the standards demanded through legislation and regulation.

The end result is that we have seen the implementation of strict controls on food safety and quality. These include ever-increasing controls on residues, which is keeping the pressure on as analytical techniques are further refined and able to detect more compounds to even lower levels.

Whether we like it or not, food production is being subjected to greater regulation. Such is the power of the consumer.

- Jim Edwards
Chairman

Apimondia technical display. *Photo: Fiona O'Brien*

Management Agency continues to reduce numbers of levy defaulters

In the October 2006 issue of *The New Zealand BeeKeeper*, I remarked that, "One of the more unpleasant tasks any manager has is to front up to those who are not prepared to pay debts owed. The AFB National Pest Management Strategy is no exception, with outstanding levies remaining at a disappointingly high level".

However, there is good news: the level is reducing as a result of letters and supporting statements (detailing debt history) being sent to defaulters. These letters give notice that if the monies are not paid within a certain timeframe, the debt will be put in the hands of a debt recovery organisation. The latter has indeed occurred.

I have stressed in the correspondence the Management Agency sees a need to be both fair and reasonable in the pursuit of the debt and is prepared to discuss individual cases, as I am currently doing. *Please do not ignore the correspondence if it arrives.* The Management Agency is serious in its efforts to collect monies outstanding as it is required to do under the Order.

The fight against AFB should not be shouldered solely by those who comply with their obligations under the legislation.

- Rex Baynes
AFB NPMS Manager

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59 new Authorised Persons (AP2s) coming on stream

On 24 July the last in a series of five AP2 training courses was held in Whangarei. The courses, sponsored by the Management Agency and Biosecurity New Zealand, with assistance from AgriQuality Limited, has resulted in 59 beekeepers progressing through to the next stage of attaining their warrants. The other four courses were held in Gisborne, Napier, Hamilton and Palmerston North.

It is particularly pleasing to see areas such as Northland and Poverty Bay increasing their AP2 coverage.

The Management Agency is looking at how best to utilise the services of all Authorised Persons in areas such as increased surveillance, unregistered apiaries and confirming the accuracy of GPS grid locations. In addition, we are looking at ways that the Management Agency can enter into a partnership arrangement with willing beekeeper hobby groups and clubs, whereby AP2s can work with individual hobbyists to assist in the fight against AFB.

- Rex Baynes
AFB NPMS Manager

Gisborne

Hamilton

Napier

Palmerston North

Whangarei

Management Agency launches AFB NPMS bimonthly newsletter

In response to your call for more information on the American Foulbrood National Pest Management Strategy (AFB NPMS), I have decided, with the support of the Management Agency, to publish a bimonthly newsletter centred around the AFB NPMS.

For reasons of economy it will not be practical to mail 2600 beekeepers six times a year, so I am relying totally on my contacts within the NBA branches, the Bee Industry Group and hobby-related organisations to make the necessary distribution arrangements within their groups, by whatever means they consider appropriate.

If you would like to be included on the email distribution list for this newsletter, please provide me with your email address.

The first newsletter was published in July and featured a range of topics that in part covered events over the past year, plus other AFB NPMS related issues.

The Management Agency
National **American Foulbrood**
Pest Management Strategy

BEATING AFB TOGETHER

AFB NPMS Bi Monthly Newsletter

ISSUE 1, JULY 2007

AFB NPMS Manager's Message to all Levy Payers

In response to your call for more information on the American Foulbrood National Pest Management Strategy – AFB NPMS I have with the support of the Management Agency decided to implement on a bi monthly basis a newsletter that will be centred around the AFB NPMS.

From the outset I must stress that for reasons of economy it will not be practical to mail 2600 beekeepers six times a year, so I am relying totally on my contacts within the NBA branches, the Bee Industry Group and Hobby related organisations to make the necessary distribution arrangements within their groups by what ever means they consider appropriate.

This first newsletter features a range of topics that in part covers what has happened over the past year plus other AFB NPMS related issues. Future issues will address what has happened over the past 2 months.

I would make the point the introduction of this newsletter is in no way to be seen as competing against the Beekeeper Journal, rather I see it as complimenting this publication. I will of course continue to contribute to the Beekeeper Journal on AFB matters.

It is hoped the beekeeping community find this publication informative and accordingly I would welcome any comment that might assist in it's improvement.

Rex Baynes
AFB NPMS Manager

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The Management Agency is looking at ways to now utilise the services of all Authorised Persons in areas of increased surveillance, unregistered apiaries, confirming the accuracy of apiary locations. In addition I am looking at ways the Management Agency can enter into a partnership arrangement with willing beekeeper hobby groups and clubs whereby AP2s can work in with individual hobbyists to assist in the fight against AFB.

Napier AP2 Course

Hamilton AP2 Training Course

Palmerston North AP2 Course

The introduction of this newsletter is in no way to be seen as competing against *The New Zealand BeeKeeper;* rather, I see it as complementing this excellent publication. I will, of course, continue to contribute to the *The New Zealand BeeKeeper* on AFB matters.

I hope the beekeeping community will find this publication informative, and accordingly I would welcome any comment that might assist in its improvement.

- Rex Baynes
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[Issue 2 has just been published and is available from your branch or hobby club.]

Are you a member of the National Beekeepers' Association of NZ (Inc.)?

Many beekeepers still think that when they pay their AFB National Pest Management Strategy (AFB NPMS) hive levies, it also makes them a member of the National Beekeepers' Association. This is not correct.

When you registered your hives you would have been issued with a registration number. This number is your hive registration number under the AFB NPMS. The payment of annual hive levies is a legal requirement. **This does not make you a member of the NBA!** The NBA does not receive any part of this payment.

The AFB NPMS Manager is Rex Baynes, who is contactable on rbaynes@ihug.co.nz. All requests for information relating to the NPMS, including DECA training, should be sent to Rex. The NPMS will soon have their own website.

All registered beekeepers receive the NBA's official journal *The New Zealand BeeKeeper* in April and October only, as the Management Agency uses the journal to convey AFB NPMS information to all beekeepers.

The NBA is a voluntary organisation and completely separate from the AFB NPMS. We rely on membership funds to allow the Executive Council to lobby government, and to continue to fund research on your behalf which is vital to the future of beekeeping in New Zealand.

The NBA has their own secretariat. Jim Edwards is the CEO (ceo@nba.org.nz) and Pam Edwards is the Executive Secretary (secretary@nba.org.nz). Their office is in Manakau, seven kilometres north of sunny Otaki.

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Membership of the NBA entitles you to:

- a voice in the Association
- branch membership and information sharing
- access to the NBA Library
- access to the 'members only' section of the NBA website, where you will find more information and updates on projects that your Executive Council is progressing on your behalf
- an invitation to attend the annual conference at a members' discounted rate. The 2008 conference will be held in Masterton from 14–17 July.
- annual membership also includes receiving *The New Zealand BeeKeeper* magazine (11 issues per year)

At the 2007 conference the NBA Executive Council was asked to look into having fewer subscription categories. The 2008 subscription rates have been set as follows:

Magazine Subscription	$112.50	Magazine only	No vote
NBA Member	$120.00 +GST	Magazine, website, Library	1 vote
Commercial Member	$ 450.00 +GST	Magazine, website, Library and Loyalty discount cards (as they become available)	5 votes
Large Commercial Member	$ 1500.00 +GST	Magazine, website, Library and Loyalty discount cards (as they become available)	12 votes

The Executive Council now hopes that more beekeepers will be able to channel funds into research of their choice. It is also worth noting that members putting money into research are eligible for tax credits.

The 2008 subscription form which you will receive during December will show a list of the research projects to be carried out during that financial year, and will include a tick box for members to donate to the research of their choice.

Corporate membership: The corporate membership fee was discussed and set at $250.00 plus GST.

Membership Cards: The Executive plans to issue all financial members with a membership card. This move is planned to assist beekeepers to distinguish between the NBA and the AFB NPMS. Your Executive Council is also currently working with businesses that have a New Zealand-wide presence to obtain loyalty discount cards for members in the Commercial and Large Commercial level. We hope to be able to continue to build on this concept.

Therefore it is only when you pay a subscription to the NBA, that you will be eligible for the members-only discounts.

We will always welcome you as a member. A member's subscription allows the NBA to work for the benefit of all beekeepers.

The more members we have, the more we can do on your behalf.

- Pam Edwards
Executive Secretary

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VARROA AGENCY INC

Varroa Agency Incorporated News

Update from Varroa Agency Chairman Duncan Butcher

Disestablishment of the Varroa Agency Inc.

The Varroa Agency has begun the process of disestablishing its operations.

The decision was taken by the Varroa Agency members at its Annual General Meeting in Christchurch in September.

Due to the detection of varroa in Nelson in June 2006, the decision by Government not to attempt eradication of varroa, and the decision by beekeepers following a round of consultation to not pay a further levy for future surveillance, the Agency has planned its pathway to disestablishment.

The disestablishment process began in October. Prior to seeking to revoke the Pest Management Strategy, consultation on border control being transferred to MAF/Biosecurity New Zealand will take place, and the Agency will start the process of winding-up its financial operation.

The Agency's final financial position will depend on the outcome of ongoing discussions with the Inland Revenue Department (IRD).

The Agency was granted tax-exempt status as at August 30, 2006, after a lengthy consultation with the IRD, but is still seeking to have the date of the status changed to when the Agency was first formed. Tax prior to August 2006 is therefore still an ongoing issue, with a liability remaining on our books plus any penalties we might incur if we don't get tax-exempt status for the period prior to August 2006. We are hopeful this will be resolved to our satisfaction.

It may be possible, if there are no outstanding tax issues, for the remaining money to be used for a research or education programme for beekeepers that would fit the criteria of the Agency's deed. This will be done in consultation with stakeholders. Any remaining funds after this would have to be given or used for charitable purposes, as this is the wind-up clause in the Agency's trust deed.

Surveillance role

The Agency has carried out and completed the autumn (February to June) surveillance programme which identified that varroa has not moved outside the Controlled Area and is still reasonably close to those apiaries where it was first found.

The Agency is also still carrying out the border control work of issuing permits and inspection, for bee and honey movements between the North and South Island. It is responsible for these controls under the Pest Management Strategy.

Under a contract with Biosecurity New Zealand, the Agency carried out surveillance this year on the border of the Varroa Control Area around Nelson, as well as inside the control area.

The Agency also carried out an exotic bee surveillance programme for Biosecurity New Zealand in the South Island in 2007.

I wish to thank all beekeepers and councils for their support over the last three years. I believe that what was achieved sets a good model for the control and handling of any further biosecurity incursions into New Zealand.

NZFSA publishes new residues booklet

A new booklet, which aims to explain the complexities around chemical residues in food, has been produced by the New Zealand Food Safety Authority (NZFSA).

Agricultural Compound Residues in Food takes the reader on a question-and-answer journey which starts by explaining what an agricultural compound is, why they're used, why they're allowed and how safety limits are set. It explains, in easy to understand language, what terms such as maximum residue limit (MRL) and Acceptable Daily Intake (ADI) mean, how you can tell the difference between them, and what happens if a residue exceeds the MRL. The 'cocktail effect' of combined residues is also dealt with, as are concerns that chemicals that may be 'banned' overseas are regularly used on New Zealand foods. The booklet also explains the laws that apply to the use of agricultural compounds and NZFSA's role in monitoring their use in our food supply and New Zealanders' exposure to them.

Debbie Morris, NZFSA's Director of Agricultural Compounds and Veterinary Medicines says: "We acknowledge and understand that some people are very concerned about the use of chemicals in their food. We hope this booklet will help to alleviate those concerns and provide them with a better understanding of the role agricultural chemicals play in ensuring the quality and safety of the food we eat."

Residue levels in New Zealand's food supply are mostly at the levels expected and results from NZFSA's most recent monitoring and surveillance programmes show that farmers, growers and importers are committed to ensuring that this continues. NZFSA advises all consumers to follow these simple steps: wash fresh produce thoroughly to remove dirt and soil around the home and garden; always follow label instructions for mixing and applying chemicals and wait for the entire withholding periods; use compost from reputable firms, and make sure it is well mixed into your soil; eat undamaged produce that looks fresh, to minimise exposure to natural toxins; prepare and eat your food in the commonly accepted manner and, if it is to be cooked, make sure it is properly cooked.

Copies of *Agricultural Compound Residues in Food* are available free from NZFSA. Hard copies can be ordered by calling 0800 693 721. It can also be downloaded from their website at: www.nzfsa.govt.nz/consumers/food-safety-topics/chemicals-in-food/chemical-residues-booklet/index.htm

- New Zealand Food Safety Authority

Add honey to your first aid kit

Last season, I picked up a smoker and sat it on the palm of my hand. I thought it wasn't lit but heard something sizzling and realised that it was my hand. Apparently the smoker had carried on burning and was very hot. Anyway my hand ended up with a big red mark over the palm and it stung like mad. I didn't have anything except honey handy, so smeared honey over the burn. It carried on stinging all day, but next day the redness had gone, there was no pain and what surprised me most was there were no blisters.

Recently I went camping and while cooking dinner, picked up the handle of the pot and found that it was nearly red hot. Again I smeared on honey. Next day some of the skin was quite smooth, but again no pain and no blisters.

I don't know how it works, but it appears honey helps stop dry heat from causing blisters and also reduces pain. Honey in the first aid kit could be a worthwhile addition.

- Gary Jeffery

> The presence of parasitic mite syndrome in a hive can make the diagnosis of other brood disease such as AFB very difficult.

Risks to export certification from industry non-compliance

New Zealand Food Safety Authority

The bee products industry has undergone considerable regulatory change over the last two years with respect to risk management programmes and the provision of export certification. This process started with the bee industry in 2004 with extensive consultation, workshops, and industry forum discussions occurring since that time.

In addition to these changes, some historic practices have been noted and deemed unacceptable. While these changes were necessary to create a solid foundation for official assurances, NZFSA acknowledges this as having presented challenges to the bee product industry.

There are many individual operators in a good state of compliance with both RMP requirements and export certification requirements, but there are also a number of problems being seen across a wide range of the industry which overshadow the positive findings for those good operators. Deficiencies in the current state of general industry compliance can be largely ascribed to the lack of understanding or, of greater concern, to a lack of acceptance of APA requirements, especially as regards the necessity for robust traceability and export assurances (e.g., e-cert, residues). NZFSA has responded to a number of processors, several quite upset, who feel that the requirements for bee product export are 'over the top' and unnecessary.

The importance of accurate and complete transfer of information to accompany product movement and processing cannot be overstated. Deficiencies in this area put the export certification system in jeopardy. When a government officer signs an export certificate, the document is only as trustworthy as the verification and traceability system which operates behind it. It is the verifiers who confirm the truthfulness of information to the certifier, giving them the confidence to sign export certificates. Unless the verifier has an adequate knowledge of the processing and tracking history of the product, their confirmations to certifiers lack credibility, and therefore the certificate itself lacks credibility.

NZFSA must be able to defend the verification and certification system it uses for the bee industry to support official assurances. Without a defensible system, even a single instance of product failure in an overseas country can cause problems far beyond the immediate consequences and costs to the processor and exporter. The bee products industry is a part of the larger New Zealand system of international exports and of New Zealand selling itself to the world. The level of sophistication required to be a credible part of such a system is constantly evolving and each industry that is a part of this system needs to evolve with it.

One notable benefit of traceability in protecting the New Zealand bee industry's image internationally was clearly demonstrated in an overseas rejection of a bee product

export consignment due to the presence of the antibiotic chloramphenicol. Because NZFSA could positively trace the origin of the chloramphenicol-contaminated product through the processing system, we were able to demonstrate that the importing country was, in fact, the country of origin. NZFSA was able to provide clear evidence to the importing country authority that the New Zealand beekeeping industry was without fault.

There needs to be a determined effort to resolve the issues summarised in this article. If not, the short-term consequence for the bee industry may be a significant reduction in potential for exploiting new export opportunities, and placement of unnecessary difficulties on maintaining existing export markets. NZFSA is determined to avoid such an outcome across the entire industry, but it requires industry cooperation in order to achieve the more favourable outcome of continued certification based on demonstrated improvements in industry compliance.

One of the vital aspects of success in the export sector is the relationship between operators and the verifier. Open communication and a cooperative attitude on the part of the operator and verifier can prevent small issues becoming major compliance problems if left undetected and unresolved. Verifiers are an important resource when it comes to the implementation of export requirements and finding more efficient ways of managing existing requirements, especially where requirements relate to the provision of records to support export certification.

Regulated Control Scheme for chemical residues in bee products

NZFSA is proposing that bee products for human consumption and intended for export are brought within a Regulated Control Scheme issued under Section 38 of the Animal Products Act (APA). The intention of the notice is to specify requirements for control of residues and contaminants (not only agricultural compounds and veterinary medicines) in bee products. The notice will have provision for monitoring, surveys and surveillance similar to the Animal Products (Regulated Control Scheme–Contaminant Monitoring and Surveillance) Regulations 2004.

The draft notices setting out the proposed requirements will be released for consultation soon and the scheme implemented for the 2008 honey season. Honey Maximum Permitted Limit specifications will be removed from the Animal Products (Residues Specifications) Notice 2004 and set out in a notice for bee products only.

This notice has, amongst other things, the effect of setting the residue limit for PDB for domestically sold honey at 0.1 mg/kg—the default provision of the Food Act, rather than the 0.01 mg/kg limit, of the APA for export honey.

Note

By the time you read this the NZFSA and the Bee Products Standards Council (BPSC) will have met to discuss ways to deal with the issues identified over the past year and in the NZFSA Compliance and Investigation Group audit, and how best to communicate the meeting outcomes to the industry and verifiers to achieve notable improvement for the forthcoming season.

NIWA's climate outlook: September to November 2007

During spring, mean sea level pressures are expected to be higher to the southwest of New Zealand and lower than normal to the north, with weaker than normal westerly winds (more easterly anomalies) across the country. Air temperatures are likely to be average or above average in all regions.

Above normal rainfall is expected in the east of the North Island, with normal or below normal rainfalls likely elsewhere. Soil moisture levels and stream flows are likely to be normal or below normal in the South Island and west of the North Island. Normal or above normal conditions are likely in the east of the North Island, and normal conditions are likely in the north of the North Island.

New requirements for the commercial transport industry

Work time and logbooks

From 1 October 2007, new work time and logbook requirements came into force. The new requirements affect anyone who is legally required to manage driving hours, including transport service operators and drivers, organisations that employ or contract drivers and transport logistics companies.

The most significant change is that all hours spent working will have to be recorded as work time—you will no longer record 'driving hours' and 'on duty' time separately in your logbook. There are also new work time limits and rest break requirements. Logbook formats have also been simplified (you can continue using old logbook stock until 1 July 2008).

Drivers currently operating under driving or logbook exemptions should be aware that these will expire on 1 April 2008, after which they will need to follow the new requirements. If you are not sure whether you're subject to work time and/or logbook requirements, or you have any further questions, contact the Land Transport NZ call centre 0800 699 000.

Chain of responsibility

Chain of responsibility provisions came into force on 1 October 2007. Anyone who employs or controls drivers will need to be aware of these provisions. If you employ or control drivers who are subject to work time requirements, and you knew, or should have known, that a driver under your control did, or was likely to, breach work time provisions, you could face fines of up to $25,000 if convicted.

Fatigue management schemes

Fatigue management schemes are programmes developed by individual transport operators to manage fatigue within their workplace. In some situations, a fatigue management scheme may be approved for use in place of work time requirements.

Operators wishing to apply to use a fatigue management scheme in place of work time requirements must apply to Land Transport for approval.

Logbook requirements

Logbook entries are required for the period between one 24-hour break and the next, so you need to record each cumulative work period (70 hours or less).

If you employ drivers or are an owner-operator, you are also required to keep fuel and accommodation receipts that can be produced on demand by an enforcement officer.

Work time is time spent performing work-related duties, including, but not limited to, driving vehicles, loading and unloading vehicles, maintaining and cleaning vehicles, administration or recording and any other paid employment. The term replaces the 'on duty' and 'driving hours' terms, which used to be recorded separately in a driver's logbook. All work time will need to be recorded in your logbook.

Logbook exemptions

The new law exempts some sectors of the commercial transport industry from keeping logbooks. These sectors must still meet work time requirements.

If you have a current logbook exemption, it will expire on 1 April 2008. However, many of the exemptions that used to be allocated individually are now covered by the new law, so your type of work or service may still be covered:

1. You do not need to keep a logbook if you drive for the NZ Defence Force, Police, Fire Service or an ambulance service.
2. Drivers of certain services or types of vehicles are also exempt from filling in logbooks, eg;
   - Farm vehicles—provided that the vehicle is only driving within a 50km radius of the farm and is used for work that is directly related to the management of the farm and is used for work that is directly related to the management of the farm, or used to transport farming equipment or stock.
   - Motor homes—provided the vehicle has sleeping and cooking facilities that take up more than half of the floor area of the vehicle.
   - Recreational vehicles
   - Special type vehicles (eg forklifts and rollers)
3. You don't need to keep logbook records if you operate a vehicle under a goods service licence within a 50km radius of your business, and your vehicle requires a Class 1 or 2 Licence. The new legislation also covers drivers who are working within a 50km radius from a temporary operations base.
4. Vehicle recovery service vehicles are not required to complete logbook entries.

From 1 October 2007, any work time and logbook demerit points incurred will apply to the driver's general driver licence. The separate 'operator demerits' system no longer exists for commercial operators and drivers.

Demerit points for logbook offences

Produced a logbook with 1–5 omissions	10
Produced a logbook with 6–10 omissions	20
Produced a logbook with 11 or more omissions	30
Failed to produce a logbook	35

- Information from Land Transport NZ

ıny Collapse Disorder: what is behind all the ia hype?

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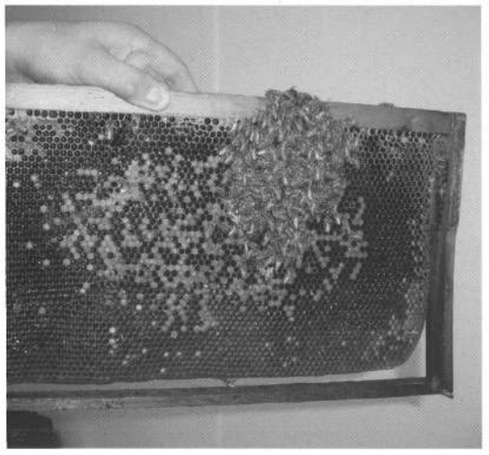
tion

cently there has been much interest in the world about reports of large numbers of honey bees g from hives in the USA and in several European he losses have been alarmingly high, in some areas ; of the hives have completely 'died out'.

l thing about colony collapse disorder (CCD) is es appeared perfectly healthy before 'collapsing'. se is caused by the adult bees disappearing and bees are left in the hive to carry out all the duties survival. In most cases these remaining young annot maintain the hive so it collapses and dies. er cases the bees disappear altogether without any ın of dead bees.

st unusual because the cause is not known. In l be caused by a combination of factors, such as ıew bee diseases. Because of the seriousness of its potential to cause billions of dollars in loss of ely on honey bee pollination, a huge amount of nterest has been generated. United States Senator ıton has pledged her support to the US Congress research into this serious problem.

ıs of CCD



/mptom of CCD is that few or no adult bees are olonies. Also, there are few or no dead bees around ich tends to indicate that they have been lost while way from the hive foraging, or have drifted or nto other colonies.

ıying symptoms of CCD may also have capped ıt and often have stores of both honey and pollen, not be robbed out immediately. Usually it takes several days or even weeks before other colonies will start robbing the collapsed hive.

CCD hives also have insufficient number of bees to maintain the brood. With the loss of the adult bees, the remaining young bees will try to assume adult duties such as maintaining brood temperatures and foraging. This usually fails because there are insufficient young bees to completely cover the brood area.

The queen, if present, appears normal. However, sometimes she is found outside the hive, which is most unusual.

If the beekeeper tries to feed the collapsing colony, the remaining bees are reluctant to consume food provided to them. The colony appears to have passed the point of no return and will die out completely in a few days.

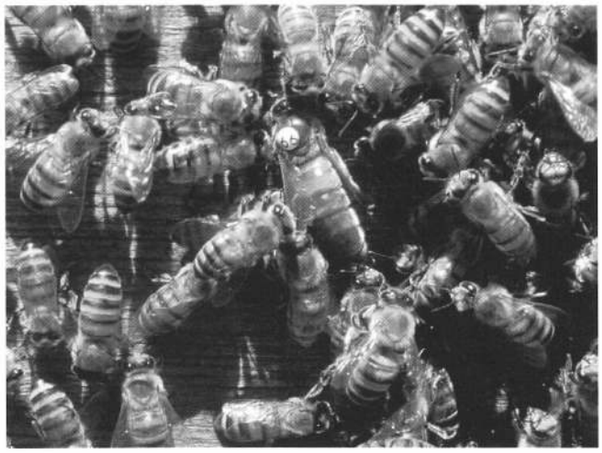
Possible causes of CCD

A number of possible causes for colony collapse have been put forward. It is most likely that CCD is caused by a combination of several factors affecting the bees at the same time.

The style of feeding and type of food fed to bees can be very stressful on colonies and it is thought that this may be a contributing factor towards CCD. In America, colonies are fed high-fructose corn (HFC) syrup, which is a relatively cheap agricultural by-product. Unfortunately HFC may contain toxins that are harmful to bees, especially if fed in late autumn when the bees are unable to make cleansing flights. Other authors have suggested that acute pollen shortages in California over the past dry seasons may be partially to blame.

When bees are stressed all sorts of secondary problems can arise, such as diseases. How bees are managed (or mismanaged) has a great bearing on the amount of stress bees are subjected to. Before varroa arrived, it was most noticeable that abandoned hives often did very well without any regular interference from beekeepers. In California, where there is a demand for a large number of colonies for almond pollination, colonies need to be opened very early in the season to make splits. Often each hive will be split into a number of singles, fed high-fructose corn syrup and treated with chemicals for varroa and AFB. The singles may be left queenless for a few days before a caged queen is added. Large numbers of adult bees may be disorientated and lost in this splitting process. The brood cycles will be out of sync and the small colony populations will struggle to survive. Obviously the colony is

under great stress, which is compounded further if it is trucked thousands of kilometres to California from other states.



A problem in America (and to some extent in New Zealand also) is the lack of genetic diversity in breeder queens. The pool of queen breeders is very limited because queen producers have swapped queens amongst themselves. In doing this they have reduced the diversity in the gene pool because they are all breeding from similar queen lines. It is thought that this may be a possible reason for CCD, because the inbred strains are very susceptible to any new disease. Other authorities wonder if the African gene in the honey bee gene pool is a contributing factor.

Over the last few decades many countries have used a number of chemicals in beehives, with beekeepers often overdosing and extending the length of treatment period beyond label requirements. The prolonged use of chemicals in beehives may be starting to show up as a sub-lethal effect. Not lethal in the sense that the whole colony will not be poisoned and quickly die out, but a slow unperceivable effect, which is very difficult to detect. This sub-lethal effect could possibly manifest itself as CCD, which is hard to diagnose in the early stages.

Over the last 50 years there has also been a major use (or misuse) of chemicals in the general environment. Residues could be starting to have some effect on all creatures living in this environment; the chemical toxins may be accumulating in the cells of plants and animals. It is well known some creatures like native frogs are very susceptible to chemical toxins in the environment and are often the first in the ecosystem to disappear. Honey bees are probably more resilient than native frogs and it is possible now we may be seeing the first signs of hardier species, such as honey bees, disappearing. One has to ask what species will be next to go: will it be *homo sapiens?*

The use of genetically modified crops is another possible candidate as the likely cause of CCD. The danger with GM crops to bees is that sometimes the seeds are dipped in systemic insecticides, which in turn can cause traces of the insecticide to be present in the plant's nectar and pollen. These traces of insecticide, even though they are very minute, could be detrimental to bees. However, this type of poisoning usually causes a slow or steady loss rather than the sudden disappearance we see with advanced varroa parasitic mite syndrome and CCD.

Throughout the world in the last two decades, the western honey bee has been under great stress caused by the very destructive external mite, *Varroa destructor*. The varroa mite, together with all its associated pathogens such as deformed wing virus, is very hard on honey bees. It is possible CCD could be just another symptom of varroa and viruses.

CCD may also be caused by a new bee pest or disease that has not been previously recognised, for example a new virus[1]. It has even been suggested that radiation from the overuse of cellphones could be causing CCD. However it is interesting to note that a number of colonies affected with CCD have been found to be infected with a new nosema species, *Nosema ceranae. Nosema ceranae* is a protozoan that affects the Eastern honey bee species, *Apis cerana* and now has jumped the species boundary to the Western honey bee, *Apis mellifera.* Nosema ceranae is a much more destructive nosema on *Apis mellifera* than *Nosema apis,* which is very common in New Zealand. Lee (May 2007) is of the opinion that *Nosema ceranae* is not the cause of CCD because dying bees are not being found in and around the hive, as one would expect with nosema. Bees heavily infected with nosema may not be able to fly off and forage, as is the case with CCD.

Scientists in Spain are more certain that *N. ceranae* is to blame for CCD in that country (Higes et al., 2006 and 2007). It is very difficult to distinguish between *N. apis* and *N. ceranae* by light microscopy but researchers have recently determined the genetic sequence for *N. ceranae* and use PCR techniques to identify its presence.

What beekeepers can do

Honey bees are a good indicator or stethoscope on the 'health' of the environment because they forage over large areas and are likely to be affected if the environment changes. It is most important that beekeepers detect any warning signs early so that any pending disasters can be diverted.

A number of countries are funding research into CCD, but one of the best methods to get a good understanding of CCD is from feedback from beekeepers. Most good beekeepers are in their hives a lot and are very much in tune with the health of their bees. They are likely to pick up the signs of CCD fairly early and this is critical for the correct diagnosis of CCD.

One of the major problems with determining the cause of CCD is that researchers are investigating the problem too late. The colony has collapsed already and it is very difficult to diagnose, because the cause of the disorder may have disappeared with the adult bees, which have never returned to the hive. Beekeepers, on the other hand, may be able to avoid this problem by picking up the signs of CCD early on.

Biosecurity threats to New Zealand

Should we be concerned about the biosecurity threats of CCD? We most certainly should!

Until the cause of CCD is determined, one must assume the worst; that is, CCD is caused by an exotic bee pest or disease.

Continued on page 26

Continued from page 25

It is also possible that the exotic pest or disease is a new one that nothing is known about.

CCD is a major threat to the New Zealand beekeeping industry and to the agriculture sector in general, because of the large numbers of bee colonies that will be wiped out. It will also have major repercussions for beekeepers supplying pollination hives into crops like kiwifruit. It will be very difficult to supply sufficient hives that meet the pollination standards as regards bee strength.

A number of countries such as South Korea are aware of the biosecurity threat that CCD poses and their governments are setting up research projects for CCD surveillance (Lee, May 2007). Some of the projects will be very sophisticated, such as electronic devices to monitor bee movement from and back to the hive, while others will be very low-tech such as surveying local beekeepers who will be asked to report signs of CCD.

Therefore, the most important message for beekeepers is to be on the look out for any signs of CCD in their hives. If anything looks suspicious, please contact Biosecurity New Zealand (0800 80 99 66) or your local Apicultural Officer at AgriQuality Limited.

Notes

[1]Israeli acute paralysis virus has recently been found in honey bees affected with CCD in America (Revkin, September 2007).

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Beekeeping and the law

[This excerpt is from the revised edition of Elimination of American Foulbrood Disease without the use of Drugs—a practical manual for beekeepers, *by Dr Mark Goodwin.]*

New Zealand beekeepers have a number of legal obligations that must be met regarding American foulbrood disease. In summary, the most important of these obligations are to:

1. Only keep bees in moveable frame hives.
2. Keep access to apiary sites clear from obstruction.
3. Not feed drugs or substances that mask, obscure or conceal the symptoms of AFB.
4. Not keep beehives more than 30 days in a place other than a registered apiary.
5. Register all apiaries with the Management Agency.
6. Mark all apiaries with the beekeeper registration code.
7. Change registration numbers only by the beekeeper who has the code number assigned to them, unless permission to do so is provided by the management agency.
8. Remove all identification codes when transferring the ownership of the hives.
9. Where a case of AFB is found, the owner of the hives must report to the Management Agency within 7 days of becoming aware of the case.
10. Complete an Annual Disease Return by 1 June each year.
11. Destroy equipment and bees associated with a case of AFB within 7 days.
12. Not deal with or transfer ownership of material associated with a case of AFB.
13. Sterilise beekeeping equipment only by approved methods.
14. Ensure hives are inspected for AFB by an approved beekeeper with a DECA provided to the Management Agency by 30 November (unless there is a certificate of inspection exemption).

Under certain conditions there are some exemptions for these obligations.

Report your AFB hot spots!

BeeSafe Agrichemical Group business plan

Background

For a number of years (certainly since kiwifruit has become a major horticulture crop), there have been poisonings of bees while carrying out crop pollination. Those affected by the poisoning events have questioned whether it is desirable to continue to provide pollination services.

With the number of hectares of crops on the increase and the use of contract spray operators to apply chemicals when the packhouses require them, the pressure is on these spray contractors to meet the deadlines. This pressure can be at the expense of the pollinating insects—in our case the bees.

Over the last six years, members of the Kiwifruit Pollination Association (KPA) have recognised this as being a severe problem, and so have raised funds from their members to employ Neale Cameron to undertake monitoring work with regard to agrichemical use issues.

The KPA commenced by:

- investigating the legal requirements of the horticultural industry
- we then set about educating the industries involved
- attaining a "test case" prosecution and working to arbitrate compliance.

However, it is now recognised that the problem of agrichemical poisoning of bees, either at lethal or sub-lethal doses, is now much more widespread and needs greater funding resources than those provided by KPA members alone.

At a meeting in the Bay of Plenty on 16 August 2007 it was agreed that a new entity be formed to address this issue, and that this entity be funded by interested groups or individuals.

Key areas of the business plan

1 Education
2 Chemical review
3 Policing
4 Funding and Administration

Key:
- ✸ Immediate task between September–December 2007
- ✪ Medium term task – to September 2008
- ✪ Long term task – from September 2008

1 Education

Education will be seen as the primary focus for this group and will target several groups in order to achieve our goals.

Results

- ✸ Educate beekeepers on sprays being used in orchards and other uses.
- ✸ Improve awareness with regard to bees as pollinators (chemicals/management influence).
- ✸ Meetings with grower groups.
- ✸ Meetings with spray contractors.
- ✸ Growsafe courses.
- ✪ Involvement with horticulture polytechnic courses.
- ✪ Liaison with councils on spray use.
- ✪ Best practice guidelines produced for councils and spray contractors.

Activities to achieve results

- ✸ Meetings organised with beekeepers in major horticulture regions where sprays being used on various crops are outlined – covering from preblossom to post blossom applications.
- ✸ Meetings with grower groups focus on BeeSafe practices to maintain healthy beestocks to ensure pollination.
- ✸ Prepare articles to go into appropriate magazines and newspapers.
- ✸ Meet with spray contractors to try to maximise compliance.
- ✸ Contact organisations running Growsafe courses and liaise with them to include module on bees, their function in providing pollination for maximising crop production, best practice guidelines promoted.
- ✪ Contact polytechnics to look at including module on bees, their function in providing pollination for maximising crop production, best practice guidelines promoted.
- ✪ Liaise with National Beekeepers' Association to obtain the list of regional and district councils within New Zealand. Work with sub-committee to produce best practice guidelines for councils.
- ✪ Liaise with regional and district councils to promote best practice guidelines with regard to spray use and timing with contracted providers of this service.

2 Chemical Review

Results

- ✸ Regular contact point with ERMA/ACVM for new chemicals seeking registration, existing chemicals up for review and to address labelling concerns.
- ✪ Database of chemicals suspect of being harmful to bees.
- ✪ Network established with overseas countries for exchange of information.

Activities to achieve results

- ✸ Make contact with ERMA/ACVM with regard to the establishment of the group and present the business plan.

- ✸ Get onto website distribution list to receive information on new chemical applications and on reviews of existing chemicals in use.
- ✪ Make submissions on chemicals that could be hazardous to bees, using a sub-committee.
- ✪ Employ person to do literature search for chemicals suspected of being harmful to bees, and to then create the database if one does not already exist.
- ✪ Lobby Government to overcome any lack of resources or policies identified during the course of this work.

3 Policing

Results

- ✸ Detection and investigation of breaches of the Hazardous Substances Regulations 2001.
- ✸ Conflict resolution between key stakeholders in horticulture industry/bee industry in relation to spray programme/activities.
- ✸ Create the 'contact point' for any enquiries in relation to sprays/spraying activities and the horticulture industry.
- ✸ Monitoring of spray activities in the horticulture industry.

Activities to achieve results

- ✸ Design system for handling complaints, in conjunction with sub-committee formed to do this task.
- ✸ Construct and maintain a record/database of spraying activities (overview) on a season-by-season basis.
- ✸ Monitor spray activities within the horticulture industry.
- ✸ Preparation of possible prosecution/warning files for any person found offending against these regulations. Files to a prosecution standard for presentation to prosecuting authority. (Prosecution procedures to be instigated as a last resort.)

4 Administration and Funding

Results

- ✸ Committee formed.
- ✸ Group formed to oversee activities: BeeSafe Agrichemicals Group.
- ✸ Independent account set up to handle funds received.
- ✸ Additional funding secured.
- ✸ Reports to BeeSafe Agrichemicals Group.
- ✸ Reports to industry and funders as specified.
- ✪ Sufficient members to enable group to be self funded.

Activities to achieve results

- ✸ Budget prepared.
- ✸ Information prepared and got out to beekeepers and other groups to get them to join.
- ✸ Regular teleconference meetings to report on progress.
- ✸ Conduct risk analysis on a regular basis and advise

BeeSafe Agrichemical Group and key industry personnel of any potential conflict/problem in a timely manner.

- Regular review of cashflow to ensure spending within budget.

Joining the group

The cost to join the group is a minimum fee of $150, or 50 cents per hive to a maximum of $2,000. Please contact Neale Cameron.

Neale Cameron
Phone: (07) 543 3421
Mobile: 027 4991 300
Email: neale@maxnet.co.nz

BeeSafe Agricultural Group meeting, Tauranga.
Photo: Fiona O'Brien.

Spring hive check and AFB check

By this time you should have done your spring check of your hives. You may find some dead and you wonder why.

1. Check for AFB. If in doubt after you have referred to page 12, Visual Symptoms of AFB, in your yellow AFB Elimination Manual, get the help of an experienced beekeeper. You will find that most apiarists are only too willing to help because they don't want your infection to transmit to their hives.

If there is any sealed brood. look for sunken, dark-coloured cappings. Look for perforated cappings or cells with cappings completely removed. If fresh enough, do the ropiness test with a thin stick. Scales could be lying in the cell, adhering lightly to the wall. The tongue may be evident if the larvae died in pupal form. A fishy smell may be detected.

If it is AFB, you are responsible to report your find with full details to AgriQuality Limited within 7 days. Write to Byron Taylor, Private Bag 3080, Hamilton, including beekeeper's registration, MAF apiary number, grid co-ordinates, road name and rapid number. I make no excuse for repeating this from last month. Then make sure all components of the hive are burnt. Even if your hive still has live bees, destroy it!

2. You may find your hive has no bees; but still has ample stores yet dead brood. This may be the loss of your queen, or the fact that there were not enough bees to keep up the cluster temperature, or more likely there were too many varroa mites and your bees absconded. Refer to your green book, *Control of Varroa*, starting at page 21. You may have had Parasitic Mite Syndrome along with the varroa. Affected larvae can be found anywhere in the comb. Larvae twisted in a half-moon shape along the side of the cell is common. Larvae look like early stage of AFB; but do not rope. Scale is soft and can easily be removed, and there is no significant smell. You may not have had many mites until a sudden invasion in the late autumn. Again, it is important to get an experienced opinion!

If you do find Parasitic Mite Syndrome, isolate and burn all the brood frames. *[Note: it is not necessary to burn the frames. However, treat the hive (e.g., add two frames of emerging brood) to clear the PMS, as PMS can disguise AFB.]* Other parts of the hive may be reused after leaving without bees for some time. Honey frames can be used for feeding and later extraction.

Come along to the next meeting of the **Hawkes Bay Branch, 7.30pm on 29 October, Arataki Honey, Arataki Road, Havelock North** to get more detailed information and to learn about the branch Diseaseathon on 3 November (or 4 November if Saturday is wet), again starting at Arataki.

- Ron Morison

[Editor's note: this information has been reprinted from the Buzz Sheet, Newsletter of the Hawke's Bay Branch of the National Beekeepers' Association of New Zealand, September 2007. Refer also to the insert 'AFB Reporting and Destruction form' in this issue for names and addresses of AgriQuality Limited Apicultural Officers who can receive the 7-day AFB reporting form in your area.]

For the attention of beekeepers who pay their AFB NPMS levies on time, the Management Agency is now actively pursuing those that don't!

API LIFE VAR

New Zealand's No 1 organic product for mite control

Some very good reasons to use ApiLife:
-it is an organic registered varroa treatment
-there is no resistance, which make ALV a sustainable product
-It is highly effective, average 95% +
-the easiest and quickest treatment to apply, no need to split the beehive, which saves you time and money
-All the components are completely safe for the beekeepers, the bees and all the products of the beehive
-Meets all EU standards for the products of the beehive
-Used effectively & successfully for over 15 years in Europe

ApiLife var contains four essential oils:
Thymol, Eucalyptus, Camphor and Menthol
absorbed on a vermiculate wafer,
with slow vapor release
It is the natural alternative for the fight against (resistant) varroa mites

For orders and enquiries:
Importer & Distributor

1. **Beegreen**, Reuben and Anne Stanley, beegreen@fastmail.fm
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Distributors:

2. **Mossop's honey**, Neil and Wendy Mossop, info@mossopshoney.co.nz
   phone / fax 07 543 0971, Tauranga
3. **Honey centre**, Rod Clarke, honeycentre@xtra.co.nz ,
   phone / fax 09 425 8003, Warkworth
4. **Rongoa honey**, Don Simm, donsim1@xtra.co.nz
   phone 021 150 3041 / fax 06 868 3866, Gisborne

Prices (1 box = 100pces = 200 wafers)
10 to 800 pces = 4.50 each + GST
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5000 + pces = 4.10 + GST
10000 + pces = 4.05 + GST
20000 + pces = 4.00 + GST

Bio-Gro NZ certified

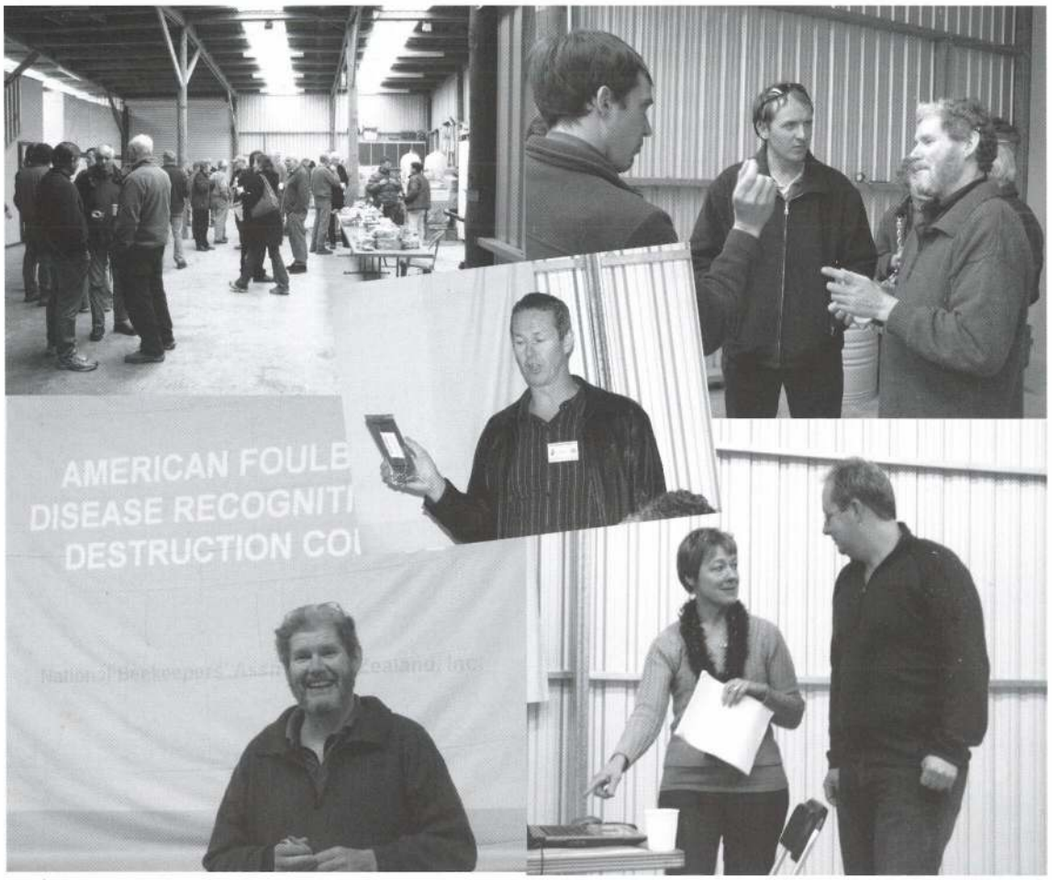
Use ApiLife and your bees will have a happy life

BK246

Thank you from an enthusiastic hobbyist

I was very impressed with the Blenheim Beekeepers Club varroa mite meeting held on 18 September, and also the American foulbrood course held the next day at Darren Clifford's premises, Taylor Pass Road, Blenheim.

There were around 40 present on the first day. The fact that I was a hobbyist with two hives and others had upwards of 10,000 made no difference. We were beekeepers sharing a common interest. It was a wonderful learning experience. Those two days brought home to me the importance of a hobby apiarist having clean hives. My two or three hobby hives could put a commercial beekeeper out of business, or as someone said, "Theirs could do the same to you". Gone are the days of laissez-faire.



Clockwise from top left: Chat & Lunch time, Mary-Anne Thomason & Darren Clifford, Frank Lindsay took the American Foulbrood Lecture and in the centre, Stuart Ecroyd.

The speakers had a thorough understanding of their subjects. Their knowledge, freely given, was obviously based on practical experience and easy to understand. I congratulate them all on doing a very good job. Also to be congratulated were those who organised this meeting. Apart from the cold when the heaters had to be turned off so the speakers could be heard, it was an extremely well-run event. (I wore an extra coat the next day and the sun shone too, so I remained warm throughout!)

Frank Lindsay did a very good job on the Sunday instructing the 20 or so of us sitting the American foulbrood exams. He gave a lively presentation using information from Dr Mark Goodwin's book *Elimination of American foulbrood without the use of drugs,* and his own practical knowledge. We were fortunate to have such wonderful speakers on both days.

I suggest, however, that for future meetings a better screen be used with the projector. Saturday was all right but on Sunday it was sunny, so the building was lighter. When the screen (a khaki-coloured sheet) was filled with writing it was easy to read, but I found the detail of the photographs with small captions underneath at times almost beyond me. However, most of these photographs were in my book.

The exam was in two parts. The first was written with a choice of multiple answers and the second part was photographs which we had to have 100% correct.

There was one photograph I did not recall seeing. On reflection it was good to have this photo because to answer it correctly we had to understand the practical side of our AFB study.

In reality, if I saw this problem in a hive I'd mark the hive and take another look later then get advice from a more experienced beekeeper before burning the hive.

Burn my poor bees!? No, I don't think I could. I can still hear the agony of a lady sitting beside me when she tried to describe how she felt when she heard her bees dying. "I never want to hear that again," she shuddered. I never want to hear it! I could dig the hole, but then I think I'd find an excuse to go away for a few days while someone else did the murderous deed.

I conclude with an extra big thank you to all involved in this meeting. Not only did I learn a lot, I met so many helpful people to whom I can go for advice.

- Paul Beauchamp Legg (K1703)

Collecting larvae/pupae samples for AFB testing

Always consult your local Apicultural Officer at AgriQuality New Zealand before sending any sample. Samples must be approved by an Apicultural Officer in writing to the laboratory before testing can proceed.

The following procedure should be used to take samples of larvae or pupae exhibiting AFB symptoms:

- break the sulphur end off a matchstick and discard it since the sulphur may contaminate the sample
- remove the suspect larva or pupa from the cell with the matchstick
- place the larva/pupa in an unbreakable plastic jar or plastic bag and seal
- put samples from one hive in one jar/plastic bag. If possible, collect at least three larvae/pupae that are showing similar symptoms
- take further samples from the hive until the jar/bag contains a representative sample of the AFB symptoms present in the hive
- do not use the same jar/bag for samples from more than one hive, since this will make it difficult to identify the sample back to the individual hive
- it is a good idea to put a match stick back in the suspect cell, since this will make it easy to find the cell again once the laboratory results are received.

- Heather McBrydie
HortResearch

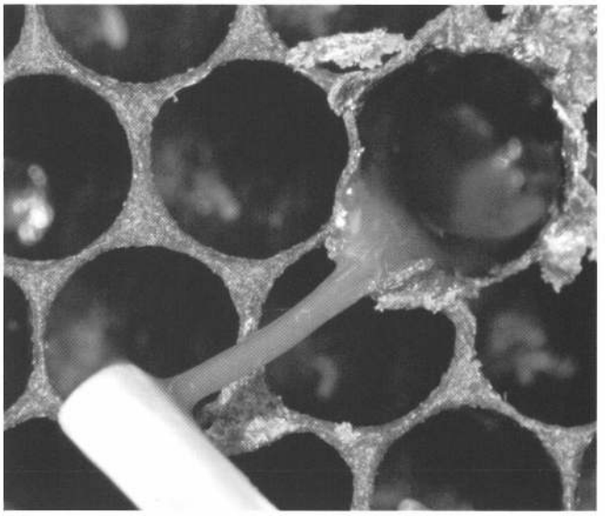


Figure 1. "Ropiness" test for American foulbrood in honey bee brood.

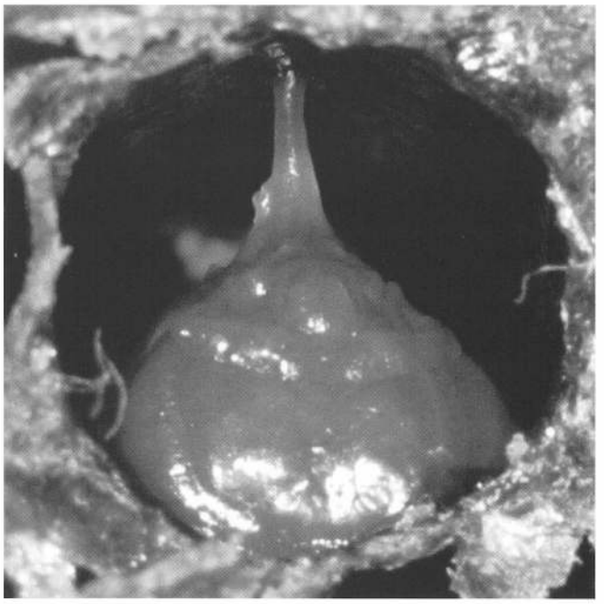


Figure 2. A honey bee pupa that is infected with American foulbrood disease. Note the tongue stretched across the cell.

Private Bag 3080
Hamilton
NEW ZEALAND
Phone 64 7 850-2800
Free phone: 0508 00 11 22
Facsimile 64 7 850 2801

AgriQuality

Notice to register an apiary

_____

The Owner/s

_____

_____

NOTICE TO BEEKEEPER: RULE 15 of BIOSECURITY (NATIONAL AMERICAN FOULBROOD PEST MANAGEMENT STRATEGY) ORDER 1998

Take notice that the beehives situated

On the property of T Kebble, Octavius Road, Waikanae or thereabouts,

are not registered as an apiary as required by Rule 15 of the National American Foulbrood Pest Management Strategy.

You are advised that you are required to register this apiary with the Management Agency at the address listed above within 30 days of the date of this notice.

If this notice is not complied with an Authorised Person may destroy these hives under the authority of Rule 25 of the Pest Management Strategy.

Dated at Hamilton this thirteenth day of September 2007

Signed

Byron Taylor

Authorised Person under the Biosecurity Act 1993

This notice has been published in the local newspapers covering the Waikanae/Kapiti area. This is an example of the 'due process' that the Management Agency is required to take when unregistered apiaries are located.

Owners of hives are required under law to register permanent apiary sites, or any apiary site where the hives are located for more than 30 days. In this case the hives have been at the site mentioned for some considerable time.

After the notice has been attached to the hives and published, and the notifiable time has passed without contact and registration by the beekeeper owner, the hives will be destroyed.

From the colonies

Northland Branch

Hope spring has sprung. The winter months have been quite busy up here in the winterless North, with over 900 millimetres of rain and wind that would make a Wellingtonian feel at home.

Jo Scott has organised two successful DECA (disease recognition) courses with a total of 40 beekeepers attending. An AP2 course was held with more than a dozen apiarists taking part. It is very gratifying to see young beekeepers taking a leading role in our industry.

I had a call the other day from a concerned property owner who had an apiary site of 10 hives suddenly jump to over 100 hives with different registration numbers. I reassured him that it was a pre-pollination site for avocados. Good PR with property owners would help alleviate concerns.

Sorry to hear that Brian Alexander has resigned from the Executive Council. He was a great support to us—thanks, Brian.

- Garry Goodwin

Auckland Branch

Springtime already, with the willow, clematis and kowhai in our area now flowering. My home hives were on a flow of willow (I presume), as I was getting good shake out from the brood frames.

It was just starting to dry out with a bit of sunshine marking the beginning of spring, but the last few days have got cold again and the rain has softened up the paddocks. With the arrival of spring the bees are really starting to explode. Most hives are getting another box on and all the tops from autumn are getting put down.

Recently we've been feeding out a pollen supplement called 'Feedbee' in a few of our traditionally slower sites. The bees take it down very quickly and it's supposed to have the same nutritional value as pollen, so that looks promising.

We've got our first cells going out in a few days. Today we've been getting hives ready for splitting by putting an extra excluder in the middle of double brood boxes to find where the queen is laying. This will save time when making our splits, as in three days' time we'll just look for the box with the fresh egg to determine where the queen is.

- James Harrison

Waikato Branch

Spring weather has arrived and the bees are finding pollen where they can and working the poplar buds for propolis. The early Matsudana hybrid willows are in flower and are very popular. Our willows are male clones, very yellow in flower. The male clones are the ones to grow because they produce nectar as well as pollen—seems botanically odd to me but that's the way it is!

Some beekeepers have started queen raising. And others are attending Apimondia in Melbourne, no doubt to rush home fired with knowledge and enthusiasm. Pollination has started for some with early flowering blueberries.

We enjoyed a visit from the Chilean beekeepers who came to the North Island prior to Apimondia. The common language of beekeeping stood us in good stead and they were very interested in looking at all aspects of our operation. Before coming to Te Kuiti they had spent time in Hamilton with Dr Mark Goodwin and his team, and also with the Lorimers. By the time they left from Wellington I am sure they would have had a good overview of beekeeping in our part of the world.

We now wait to see what the weather gods throw at us. Will we follow the UK pattern? Their spring was excellent and they took an extremely early honey crop, to be followed by a dismal summer with far too much rain, therefore poor honey production. However their autumn weather was settled and I am told there was a very good heather crop. So what will the 2007–08 season be like for us?

- Pauline Bassett

Dinner at Apimondia; left to right: Barbara Clements, Annette Berry, Russell Berry, Bryan Clements. *Photo: Fiona O'Brien*

Bay of Plenty Branch

The Bay of Plenty is enjoying rather nice spring weather and the bees are generally in good shape. To date no one has reported any issues with varroa, so hopefully we are still managing to avoid resistance issues by correct usage of the variety of products we have available to us. This does not mean we can relax but need to be ever vigilant about correct usage and alternative product use.

With so many beekeepers now involved in kiwifruit pollination this build-up period is vital for both the beekeeper and the orchardist. To date no serious frost has come to bite us, although that could still happen.

Another surveillance round for AFB is now progressing with a wide range of sites being given to us. The contribution of time to this ongoing surveillance is vital to improve the overall outcomes of the NPMS, and we are pleased as a branch to fully support the Management Committee in its initiatives.

Our only DECA course for the year was held in July with 28 people attending. Several more experienced beekeepers attended this year in order to comply with the requirement to have completed the course by the end of July, plus our usual newcomers to the industry. All passed so we had a good outcome. Unfortunately it was not one of the easiest courses the team have taken over the years, with a little politicking going on during the day. Sincere thanks to Ross and the team. Next year's course will occur at the more usual timing of August/September if there is sufficient interest.

For our last meeting of the year we enjoyed a presentation from Dr Abdi Saffari on bee nutrition and the role of pollen supplements. Abdi is a great speaker with a passion for bees, which made a memorable evening for those present.

We have no more meetings for the year due to the workload of most members, so the next scheduled meeting is in March. Check the February issue of *The New Zealand BeeKeeper* for details or contact the President or Secretary. Meanwhile, have a successful and safe season.

- Barbara Pimm

Poverty Bay Branch

Spring is here again—the willow is in full flower with the bees starting to build up.

I was interested to hear that Mark Goodwin and Michelle Taylor's breeding programme for a varroa-resistant strain was going well. Well done to those involved. Now the bad news: the funding has run out for this wonderful research. Who can continue to fund it? The breakthrough achieved will be a world first.

Also, good luck to those undertaking the organic trial. I have just finished the paperwork for registering with AgriQuality Limited for organic honey production.

Haere ra.

- Don Simm

Hawke's Bay Branch

Varroa numbers in most hives appear to be quite low and most hives are developing well, with early willow already stimulating breeding. A larger number of hives than normal seem to be going into stonefruit pollination this year. The weather has been a mix of both fine and rain and although it has been reasonably warm, many farmers are still desperately short of grass due to the after-effects of our prolonged autumn–winter drought.

Many orchardists will not be using carbaryl this year because of restrictions on its use by European countries. But with

reports of poor winter chilling and a prolonged budbreak likely to be the result we can expect some poisoning to occur this year. I hope I am mistaken.

In August my family and I were privileged to host a beekeeper from Chile. Felipe Gomez is a young semi-commercial beekeeper full of enthusiasm for both beekeeping and bees. It is usually a delight to meet people from other countries and share with them and Felipe was no exception. His grasp of written English was very good and he could understand most of what I said if I spoke slowly and carefully (I don't think they teach New Zealand English overseas).

I also had about 20 cadets from a horticulture class at the local Eastern Institute of Technology visit me the other day. This is an annual event where I try to give the cadets a general overview of beekeeping and how horticulture and beekeeping interact. Hopefully in the long term this knowledge will lead to less spray poisoning and perhaps more sensible placement of beehives within orchards. While showing the cadets a frame of brood with bees, drones and a queen, the queen disappeared. Despite looking for five minutes I was unable to find her, until one of the cadets felt something crawling up his leg. I was very impressed he did not squash it (as I would have done at the first hint of a bee crawling up my trousers to parts unknown).

- John Berry

Southern North Island Branch

We are off to a great spring. Members are reporting plenty of pollen and good development within the hives. As I write this swarms are starting, and queen cells are being found in hives as the spring inspection is in full swing.

I have been busy touring the country with Dr Abdi Saffari talking about bee nutrition and of course, Feedbee. It has been very interesting to hear comments from beekeepers around the North and South Islands on pollen flows, hive development etc. It is becoming increasingly important to ensure that hives have adequate nutrition. In the USA, two of the factors associated with CCD are considered to be lack of good nutrition and bee stress.

I met two members who are still extracting, but most of us have completed that task some time ago, and are now looking for improved honey prices. There seems to be a better market for 'bush honey' or amber colour which many of our members produce. For my money the best honey for eating is bush honey, but then I am biased and so are a lot of my customers.
Apimondia is over so a lot of beekeepers have had their Australian holiday. At our next meeting we will be talking about what members saw and found out. For those of us that were unable to go, it will be great to learn more about the world scene and how it affects our production and prices.

Preparation for NBA AGM in Masterton is well under way. Expect to have a good time and learn a lot. Pencil in 14–17 July 2008 to be in Masterton for "100 years of Beekeeping" for the Southern North Island. A hobby forum will precede the Conference on 13 July 2008.

- Neil Farrer

Nelson Branch

I am writing this not from Nelson, but from Melbourne, Australia while attending the 40th Apimondia World Bee Congress, along with over 80 other New Zealanders!

In speaking to other 'top of the South Island' beekeepers here, we all agree that we have had excellent spring weather creating a good early build-up. One Marlborough beekeeper stated that he lost only 1.5 beekeeping days in August due to bad weather. Others in Marlborough said that it is very dry but at this point, it hasn't affected the bees. Most have their queen raising under way—perhaps now the rains will start!

The Marlborough Beekeepers' Association put on an excellent 'Living with Varroa' workshop at Blaycliff Apiaries in August. Attendance was high, Ecroyd's Beekeeping Supplies supplied the lunch, and speakers from the North Island once again reassured us that we can live with varroa. Most of us have now accepted the fact that we will probably see varroa in our hives this season (especially after the movement of hives coming out of pollination) and are preparing accordingly. Some beekeepers in Nelson are already putting in spring treatments for highly infested hives, while others are starting to order treatments in anticipation. As Mary-Anne Thomason suggested at the workshop, this is a good way of preparing for varroa and it helps with the cash flow.

Biosecurity updates occurred at the Blenheim field day and also in Nelson on 29 August. Following the autumn varroa surveillance, Biosecurity New Zealand reported two new 'incursions' (my term) or 'bleeds' (Biosecurity New Zealand's term) over the Pelorus Bridge control line (east), but no incursions over the Wash Bridge (west). This line within the control zone was put in place to slow the spread of varroa into the Marlborough area. At the time it was drawn, it was understood that should there be incursions over that line, then it would be withdrawn.

Many thanks to the DECA (Disease Elimination Conformity Agreement) workshop providers for workshops held for 27 beekeepers in Marlborough (August) and over 30 in Nelson (July). All beekeepers who passed the exam following the workshop are now entitled to be accredited examiners for AFB hive checks. All New Zealand hives must be checked yearly by a qualified DECA holder.

At Apimondia the big talk is about the problems with antibiotic residues in honey. Dr Mark Goodwin's talk on AFB history and the Pest Management Strategy in New Zealand created great interest: Ceracell sold out of the revised edition of the New Zealand AFB manual within minutes!

- Merle Moffitt

Canterbury Branch

Spring so far in Canterbury has been pretty mild and reports are that the bees have wintered particularly well. Access to yards has been great so far, mainly because ground moisture is low. Bees seem to be in a good condition and in the correct phase of their cycle to take advantage of the willow flow in a few weeks' time. Hopefully we will get favourable conditions to take advantage of this early nectar/pollen source.

Remember to keep a wary eye out for varroa as it is now only a matter of time.

- Brian Lancaster

Otago Branch

Spring is here and so far it is quite a pleasant one, with less of the winds that plague us some years. A good start on the willows and other spring sources sets hives up well, and cuts down on the feeding for a while at least. After a good autumn and a relatively short but harsh winter, most hives have good stores still. Good rains mid-winter have restored the ground water too, so it is 'so far, so good' for the season.

Beekeepers haven't been too idle during the winter: the NBA Conference in Dunedin kept a few of us very busy for a while. It was by all accounts a good one and I would like to take the opportunity once again to thank our sponsors. Without their generous support it would not be possible to provide a conference that would be affordable for many to attend. If there was any disappointment at all it was the poor uptake by local beekeepers. I think we mailed out invitations to over 300 in Otago and Southland, and only a fraction came to an otherwise very well-attended conference. I am afraid it was their loss. Thanks too to our seminar presenters—it was an excellent opportunity to learn a huge amount about beekeeping and related topics, have a great time meeting other beekeepers, and all at a very affordable cost. I can only urge all beekeepers to make the most of this opportunity that the NBA provides every year.

On the local front, varroa is hopefully still a few years away. In the meantime we are determined to keep up the pressure on AFB. Education is the key, and recently both Telford Rural Polytechnic and Blair Dale organised DECA courses. Consequently we have more than 30 new 'licensed' beekeepers in the region. A bit of enforcement will be required to nail the last one or two beekeepers who still let the side down and threaten their neighbours' hives. So much good work can be undone by just one slack beekeeper, usually in denial!

Today is a stunning, windless, warm spring day and I can just imagine the nectar and pollen pouring into some very happy hives. Good luck with your season.

- Peter Sales

Southland Branch

After a sharp cold snap in July, the weather is starting to warm up. A first check through the hives for most in Southland and south-western Otago has shown that the hives have come through the winter fairly well, with fewer than the average number of losses. For the writer at least, this is a good start to the season. A first round of feeding has been completed and we are heading towards requeening starting in early October.

In late August MAF carried out a two-day seminar in Gore on varroa management that was well attended and much appreciated by the good number of Southland and Otago beekeepers who were present. We are all hoping not to see varroa this far south for at least a couple of years yet, but it was good to get some upskilling on what to do when it gets here.

- Barbara Lomax

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- The safe and sensible treatment solution
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- Perhaps go halves with a fellow beekeeper
- 50 kg bags. Only 16,000 kg available

1000+ kg	**$1.99 per kg + GST**
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Plastic Drone Brood Frames

For effective Varroa removal from your hives – available now. Green in colour. 52 per carton.

208+	**$2.90 each + GST**
52 – 207	**$3.15 each + GST**
1 – 51	**$3.48 each + GST**

Quality Leather Gloves

Finally we have a glove made to our specification

- Stunning quality
- S, M, L, XL and XXL

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Swarming

Swarming is normal bee behaviour but can lead to the virtual loss of a honey crop. My first experience with a swarm was when I was a teenager. A swarm landed on the fence and I noticed bees going into a hole in the garage wall. I then went inside and could see the bees (about 50 or so) walking around the cavity and appeared to actually be measuring it up. Then all of a sudden they all disappeared. At the time, my father was painting the wall of the garage. I told my father that a swarm was coming and he told me that I didn't know what I was talking about, until all of a sudden he was covered in bees landing on the wall and going into the hole.

I think we tend to think that bees do things by instinct, but seeing them apparently measuring up the cavity made me think that they actually based some decisions on reason rather than instinct.

Anyway, back to the present. I get the impression that bees actually sort out their new home before the swarm leaves the hive and may even have it worked out long before the queen cells are even started.

On this basis, we like to put swarm traps with old combs out before swarming starts. They work best if the trap is put on top of a hive facing backwards rather than on the ground. Each time you go round your hives, check the swarm trap as unless you do this you could lose your combs because of wax moths. If any wax moths are present, take the time to dig the grubs out and kill them. After swarming stops, it is best to put the old combs if not used onto a hive to clean out any wax moth eggs and larvae.

We are hoping to gain a lot of wild swarms to build up a reserve of darker type bees before varroa arrives, as I believe these wild type bees are our best source of potentially varroa-resistant bees in our breeding programme. A pity it had not been done in the Far North when varroa first arrived: it is likely that the wild bees in the Far North were of the English type of bee as there is a good market for true to type English bees.

Swarming is triggered either by starvation or a lot of honey. Starvation swarms are actually beneficial for a hive. The swarm does not have brood to feed for a few weeks and the break in the brood cycle in the original hive also reduces the feed needs. In the intervening period there is the chance of the honey flow starting and saving both units.

The excess of honey swarming is usually triggered when the honey forms a cap over the brood. I get the feeling that the bees feel that there is no more space so they swarm. You can stop this effect by lifting say three combs of brood up a super and scattering three combs, preferably foundation, in the brood nest. Darker bees tend to develop a brood nest with honey capped over the top of the brood and swarm more easily.

Because we run a three-quarter super above the full depth brood nest we cannot lift brood up. Instead we keep the queen in a single brood nest until early October and then lift the excluder up a box, allowing the queen to lay into the next super until the honey flow. When the honey flow starts we shake the queen down and lower the excluder to the top of the first box. As the brood hatches in the second super, it is replaced by honey that the bees use for winter stores.

A single swarm is usually not strong enough to get a full crop. You can unite two swarms together or add the bees to another hive by papering on. But DO NOT put a swarm onto another hive until the swarm has brood of its own or the hive will kill all or most of the bees in the swarm. Sometimes two swarms if collected at the same time can be combined, but it is still safer to wait until both have brood and then unite with paper.

When you get a swarm, it is great to see the bees running up into the hive. However, that evening you should place an excluder underneath the box to keep the queen from leaving the next day and taking the bees with her. If you don't do this you will lose at least half of the swarms you collect. When the new queen is laying, remove the excluder. If you leave the excluder on too long, the drones will not be able to get out and die trapped in the excluder.

I prefer to put a swarm onto new frames of foundation as this helps avoid American foulbrood infection, which bees can carry from an infected hive. If you are certain of the origin of the swarm, you can use old drawn combs.

If you collect swarms in your swarm traps don't forget to check the brood carefully for American foulbrood disease after the brood starts to hatch.

If you are not certain what American foulbrood looks like, you can always do the disease recognition course and sit the exam. As long as you have a bird brain and can learn like a parrot, you can pass the test and also gain some basic knowledge of disease, but seeing an actual example will teach you quicker. As a general rule, when looking into your hives if you lift out a comb where most of the brood has emerged, look and see if an odd cell is still sealed, open it with the corner of your hive tool and look inside. If the larvae inside doesn't look normal, check with someone who can tell you if it is ok or not.

The main thing is always be on the cautious side. If someone offers you some gear, assume it is diseased unless you know the source. Old gear that has been in a shed for years is particularly risky as sometimes hives die with disease and the gear is just put away out of sight instead of being burnt. Foulbrood spores can live in old gear for longer than your lifetime.

- Gary Jeffery

Apimondia—Beekeeping Down Under

Along with perhaps a third of the commercial beekeepers in New Zealand, we visited Apimondia in Melbourne during early September. It was our first time to Melbourne and the first time I have attended such a large overseas convention. Large for us, but some commented that being "down under" half the world was missing.

Melbourne is easy to get around with quick and efficient tram services and it didn't take long for the Kiwi contingent to find the best places to have our evening meals, the casino just across the road being one of the cheapest.

On arrival we were straight into getting our registration bags and looking around the trade stands. The Korean and Chinese firms had an amazing amount of items on display.

The Aboriginal fire lighting at the opening ceremony was impressive and they also injected a little humour by having a Bic lighter to scare the gods just in case.

With three lecture sessions going on at most times throughout each day, it was hard to split oneself up as there was generally something in each that was interesting. In the end, two of us split our activities so we will in time, perhaps be able see each other's videos.

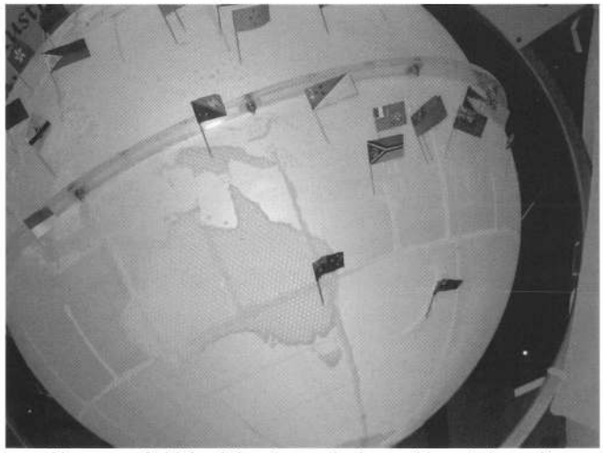
I hadn't realised that some speakers fail to show so there were blanks in the programme. Some sessions were left as blanks and delayed things until the next speaker was due; others had fill-in speakers. One of the worst for this was the apitherapy sessions, where in one afternoon four speakers failed to show. I found this disappointing as some of these were for me going to be the most interesting. Still, the organisers managed to present some interesting topic off the cuff.

Jeff Pettis in his keynote address asked "have we gone too far with our equipment in the search for standardization?"—that is, does it suit our bees? He suggested that perhaps our entrances were in the wrong place, as bees in the wild don't walk through their hive debris. Jeff presented some AFB research using different entrance positions, commenting that the ventilated bottom board hives produced more brood but as yet, he didn't know why.

The residue session was an eye opener. You can see where this is all leading with EU regulations. What we put in our smokers, the sprays we use for grass control, etc., could be the next things we have to consider in what goes into our hives. Everything leaves a residue and we must be aware of it.

Fire ceremony – opening of the conference, Apimondia Melbourne.

Beechworth truck, Apimondia Melbourne.



Close up of Eric's globe: A year in the making, Apimondia Melbourne.

Trailer unit set up for moving bee hives, heat exchange for cooling plus fine mist sprayer.

Adulterated honey on the world market is a big problem which has up until now been difficult to detect; however, one laboratory announced a breakthrough that has taken years to perfect. They can now detect rice and beet sugar produced honey (which has a similar make-up to honey) down to levels of 10%. This means their testing picked up 300% more samples of adulterated honey whereas today's standards only pick up 3%. A Spanish laboratory has verified their results and now it only has to be agreed with the international body to get approved. Some of the big Asian producers will have to watch this space.

Friday's field day trip was enjoyable. The countryside outside Melbourne looked green and healthy but belied the drought problems. The area had rain showers that promoted grass growth but it was very dry three inches down. One beekeeper reported that a farmer had bailed the early canola crop as it hadn't flowered. There was hardly a blade of grass in the bush and things don't look all that good for beekeepers and farmers alike if they don't get rain very soon.

But the day gave beekeepers an opportunity to chin wag while leaning over rails observing other practices. Australians have developed extracting systems that get honey off quickly with a minimum of labour. Two plants were on display but we didn't know which bus went to which location, so it was a lucky dip as to the plant we saw.

Most of the Kiwis came home with a dose of flu which knocked us from two to five days. So if you are planning to attend another congress in the future, have the flu shot before you leave.

- Frank Lindsay

Photos: Frank and Mary-Ann Lindsay, Fiona and Jeremy O'Brien.

The Honey Queen competition judges: Fiona O'Brien & Debbie Millett from the USA.

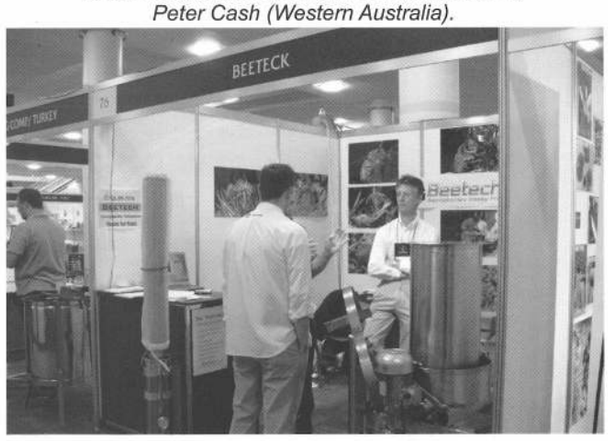
Paradise honey stand – discussion on plastic hive bodies.

Annette Berry (back), Lewis Olsen and Linda Bray.

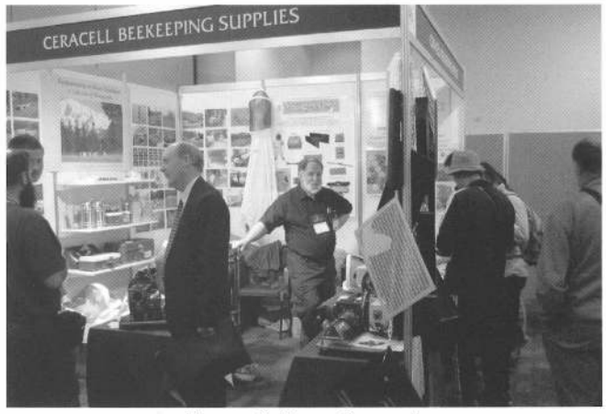
Rodney Palmer (Australia) and Malcolm Haines (New Zealand).

Bill Winner, Capilano--always ready to do a B-Qual audit.

New Beequip uncapper with the manufacturer, Peter Cash (Western Australia).



Beetech stand.



Trevor Cullen – Ceracell.

Down Under display.

How do you rate as a truckie?

Believe it or not, as beekeepers we flit around the fringes of many other industries. Depending on the size of our trucks, how many we own, and whether we hold goods service licences, Land Transport NZ could be rolling out some new requirements that will affect our role in the commercial transport industry.

Operator rating system (ORS)

The ORS system is a tool to assist in improving the performance of commercial road transport operators against relevant transport-related legislation.

This will enable Land Transport NZ to pull together information, such as Certificate of Fitness (COF) inspection results, crash data and offence data, and use it:

- as a targeting tool for regulatory and enforcement action by Land Transport NZ and NZ Police; and
- to produce ratings for operators based on how well they are meeting the requirements of the law.

The benefits are expected to include:

- a reduction in heavy vehicle crashes and social costs due to improved compliance
- more effective and targeted enforcement — creating a more level playing field for operators; and
- published ratings to encourage operators to improve standards and consumers to make informed choices.

All Transport Service Licence (TSL) holders will be rated under the ORS. The data that will make up your ORS rating include crash information, certificate of fitness information, operator reviews, roadside inspection information, driver and operator convictions and infringements.

The rating will be on a 1 to 5 star basis with 5 being 'excellent'. Every transport service licence holder will begin on a 5-star rating. The rating will be based on 24 months of captured data, with the first rating allocated from July 2009, and reviews six-monthly onwards. There will be a review process that you can follow if you disagree with the rating before the ratings are made public.

You are already having data captured towards your first ORS rating! If you have been through a COF recently then I hope it went well. After attending the Land Transport roadshow in Hamilton, it was evident that what was playing on the minds of a lot of commercial vehicle owners was the inconsistency with testing stations, and how that would affect the ORS ratings, especially around the heavy brake testing. It appeared from discussion that a lot of truckies had been having problems around this issue, even having the brake test fail, and taking it directly to another testing station and passing. This will all be reflected on your ORS. Having

good service providers in your mechanics, tyre specialists and good truck maintenance will bode you well.

If you are not happy with an incident you need to query or pursue it when it happens. Talk to the manager of the testing station, or the boss of the enforcement officer who pulls you over. Don't wait until your rating is calculated. There was a lot of talk at the meeting by participants about both the testing stations and enforcement officers. They (compliance and enforcement) don't always get it right; however, you need to follow it up. The message was that it is almost too late to follow up 24 months later when your rating is given.

Any further enquiries ring Land Transport NZ (0800 699 000) or go to their website: www.landtransport.govt.nz/commercial/

- Fiona O'Brien

Displaying your TSL number

From 1 October 2007, Your Transport Service License (TSL) must be displayed on both forward doors of all vehicles operating under that TSL number, so that it can be seen by a person standing next to the vehicle.

The size must be at least 48 point (at least 11mm high), eg: TSL 1234567.

This is one of a number of law changes affecting the commercial transport industry from October 2007. For more information, see the Land Transport NZ website www.landtransport.govt.nz/commercial/ or ring freephone 0800 699 000.

Apimondia technical display. *Photos: Fiona and Jeremy O'Brien.*

About the Apiary

The first two weeks of October are swarming season for us here in Wellington, although the first call was received in late September. In cooler inland areas of New Zealand, swarming occurs much later. During the previous couple of months, the bees in this area have been steadily building on the rich natural pollen and nectar sources, mainly Gorse and Tree Lucerne.

The first real flush of nectar comes from Hawthorn, Cabbage Tree or Willow, depending upon the district, which can trigger the bees into reproductive mode. This occurs when there is an excess of young bees and brood in the top super, and when the bees have nowhere for the brood nest to expand upwards. In a large hive it can be triggered when there is a ceiling of honey between the brood and the open super above. Generally the queen won't move above this strip of honey.

If a hive swarms there is a double jeopardy for the beekeeper:

1. you lose the field force that would have produced a honey crop
2. you will have to re-treat all the hives in that area during mid-winter as robbing bees from your colonies will be bringing loads of mites back from those collapsing swarms.

Hence it's important to get on top of the situation early. Beekeepers can employ a number of techniques to prevent swarming:

1. Regular requeening: Most beekeepers now replace their queens each autumn as young queens don't generally swarm in their first season, but hobby beekeepers who have hives close to urban areas know that this philosophy doesn't always work. Since varroa mites arrived, there have been seasons when the bees get it into their minds to swarm. Even nuc hives will swarm, which is a very disappointing situation.

2. Reversing the first and second super so the majority of brood is in the bottom super, thus allowing the brood nest to continue to expand upwards.

   For those beekeepers who employ a single brood nest, you can relieve congestion by removing two middle frames with emerging brood and after shaking all the bees off, place them in the centre of the super on top of the queen excluder. Replacement frames are positioned immediately either side of the edge of the brood area. The young bees will reorganise themselves and come up on to the frames and support the brood.

3. Supering early, and putting in a couple of foundation frames for the bees to draw out. This gives the bees somewhere to go and something to do, thus relieving congestion in the brood nest.

4. Splitting any hive that initiates queen cell production. You get an idea of which hives are likely to swarm while

doing your early inspections. Those hives that have commenced early drone production (a sign that the hive has a plentiful supply of pollen and nectar) are generally the ones that are likely to swarm.

I prefer to split the hive in half. Find the queen and leave her along with half the bees and brood in the top section of the hive above a split board. Go through this section of the hive and remove all the queen cells. (A split board is basically a crown board with an entrance about 25 mm wide on one side.)

Then go through the bottom part of the hive and remove all but one good-sized queen cell. Add another super on top, then place the section with the old queen on top with the entrance to the rear. The field bees return to the original entrance and will maintain the queen cell. The hive with the old queen, relieved of the half of the bees, will continue to expand at a slower rate.

I like this type of split as you maintain the old queen as an insurance against the new queen not mating successfully. In three weeks if there isn't a new queen laying in the bottom part of the hive, it's easy to combine the colonies back together again using two sheets of newsprint. Brood rearing has still been maintained yet the swarming instinct has been satisfied.

Another alternative is to take brood and bees away, thus relieving congestion. Find the queen and put her aside so that she will not be included in the bees and brood you are going to take away. Go through the hive and remove all the queen cells. As a minimum, select two frames of emerging brood, a frame of pollen and honey and another frame of honey and place these into the centre of a new super or a five-frame nuc box. Fill the rest of the super with drawn frames, then shake the bees off another couple of frames of brood into the nuc hive to support it. Block the entrance with grass and remove to another apiary at least 2.5 kilometres away. You can use this nuc to boost another hive or add a ripe queen cell to it and you will have a productive nuc hive—weather permitting.

5. Equalise hive strength. Some beekeepers reverse the positions of strong hives with weak hives so the field force of the strong hive strengthens the weaker hive. Others do it in a more organised manner by going through all the hives and getting them all to the same populations by exchanging brood frames between hives. This is only done once a thorough brood inspection has been completed on all hives, so there isn't a chance that you could be inadvertently spreading disease (e.g. AFB). Once all hives are equalised it's easy to maintain them, as what needs to be done to one needs to be done to all.

6. Control nutrition so they do not swarm. Some feed 'just in time'; i.e., they only give enough sugar syrup for the bees to survive on without them being stimulated into rapid brood rearing.

These are some of the methods beekeepers use to prevent swarming. Choose whatever suits you and stick to it. The idea is to keep the hive's population building without swarming.

Some beekeepers tend to cut out all the queen cells as they appear, but this can result in a queenless hive if you do not understand what you are looking at. The bees could be superseding (replacing their old queen themselves) instead of swarming. It takes a bit of experience to determine whether the cells you are looking at are swarm or supersedure cells.

For instance, supersedure cells tend to number about five, whereas swarm cells can number from 10 to 40 (but not always). Supersedure cells tend to be on the outside frames in the upper brood nest, close to or against the brood, whereas swarm cells tend to be spaced around the edges of the frames and along the top and bottom bars within the supers.

During an inspection I always leave the first queen cell I come across and place the frame containing the queen cell against the hive and continue with my inspection. Quite often it might be the only queen cell, and if there are no eggs (indicating the absence of a queen), cutting out this single cell could mean that the hive will have a long brood break and possibly go queenless, therefore it would not be an optimum honey producer.

So what should you be doing to your hives this month?

Basically we should all be doing a quick inspection of every hive at 10-day intervals. The easiest way to do this is to split apart the first and second super and look along the bottom bars of the top super for queen cell development. Queen cell buds are ok but as soon as you see an egg in a cell, something has to be done with the hive.

If there's no queen cell development, check to make sure that the bees have enough stores, as a minimum of three frames will only keep a strong hive brood rearing for a week. If the hive is below this level, then feed it until the honey flow starts. Weaker hives should be fed sugar syrup—two parts sugar to one of water, but strong hives (three super hives) can be given raw sugar into a top feeder. Just add a little water to the edge of the sugar so the bees learn to bring up water to dissolve the sugar. As soon as a nectar flow starts the bees will no longer work the raw sugar.

Then make sure the bees have room to expand. There should be three or four spare frames for the bees to move on to. When in doubt, give them another super with mostly drawn frames.

If you are a new beekeeper and only have foundation frames, interspace two or three of these between drawn frames in the second or third super, and feed the hive so the bees commence wax building. Also, take a drawn frame or one containing honey from the outside of the super below and place this in the centre of a super of foundation frames. This will draw the bees up into the foundation frames. Sometimes bees will

Continued on page 53

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not move into supers of foundation unless they are baited up into them.

Things to do this month

Check feed. Check pollen (a substitute is now available for beekeepers with hives in pollen dearth areas—bees need both feed and pollen to develop). Check for AFB, cull out old frames and super hives if necessary. Check mite levels. Most will have spring treatments in already. Raise queen cells and make up nucs as replacements in case of later queen failures. Fit foundation to your new frames now that the weather is warmer.

- Frank Lindsay

Apimondia technical display.
Photos: Fiona and Jeremy O'Brien.

You can't help laughing

Another time I asked for the help of the local Apiary Instructor to kill a wasp nest I thought was nastier than usual. He agreed to help and later arrived with another new Apiary Instructor to show him how to tackle the problem. He also brought his boss and the Superintendent of Horticulture at that time. We went through the bush towards the wasp nest. When the Apiary Instructor saw the nest, he said it would be no problem. I said to the boss, "Let's move into the bush".

A few minutes later, as the Apiary Instructor approached the nest, we heard a series of "yip, yip, yip" cries. I said to the boss, "Let's go further into the bush". My motto is: cowards live longer.

Anyway, the wasp nest met its just desserts and the verdict of the Apiary Instructor was that he had killed bigger nests, but this was the worst tempered.

- Gary Jeffery

The Sting

Shelley Gare

The following is an extract from the Weekend Australian *magazine September 15–16, 2007. Dr Denis Anderson gave the name destructor to varroa and is a researcher based in Canberra, working for the Australian government. He was here in New Zealand during the 1980s, identifying our bees' diseases.*

Which brings us back to CCD, the mystery plague. The poor bee already endures a host of diseases and pests. As well as *Varroa,* there are nosema, American and European foulbrood disease, chalk brood, sac brood disease ...

But the CCD stories have an apocalyptic feel. Elizabeth Kolbert, in her article in *The New Yorker,* wrote of CCD-affected bee samples: "Such was the level of infection that ... it was as if an insect version of AIDS were sweeping through the hives." In a story from *The Daily Telegraph* in the UK, a US researcher dissected a bee to display blackened kidneys, a swollen and discoloured sting gland, scarred intestines and a rectum packed hard with undigested matter.

The craziest explanation for CCD is that it's a secret plot by Osama bin Laden. The explanation being taken seriously is that bees are overloaded. Capable of standing up to stress, travel, overwork and pesticides, bee colonies collapse when the combination of all of these takes them over the edge, affecting their immunity.

Denis Anderson, in his measured, drily humorous way, blames another factor. Hysteria. He pads around his office, explaining the science and chuckling to himself as he talks about lecturing students, projecting his PowerPoint slides on CCD and telling them: "You are now entering a data-free zone".

For him, the most credible evidence that something unusual was definitely going on was that this year there was a shortage of honeybees for the massive Californian almond orchards. The beekeepers came from different states like Minnesota, Washington and Montana, and all said they'd had above average losses over the 2006–07 winter.

But a few months earlier, a Pennsylvania beekeeper called David Hackenberg had claimed he'd lost two-thirds of his hives after wintering them in Florida. Originally, it was decided Hackenberg's hives had been poisoned, but once the Californian shortages became known, the Florida bee losses got lumped in with those.

After that, anecdotes came thick and fast.

Anderson starts to sound like a diligent Moses trying to hold back the waters but without God's help. "Most of the reports were beekeeper hearsay, but the popular press took it on board," he says. "The incidence of CCD snowballed."

Mid-year, he visited the US. He is highly sceptical of the "science" which has gathered so many afflicted hives into the one new disorder. "A lot of the findings are coming from beekeepers, and they are notoriously unreliable," he points out. "I saw some of Hackenberg's hives and they were all marked in chalk 'CCD'. But when I looked in one, I could see it had chalk brood. In another, there was something wrong with the queen bee. I asked them if they'd tried putting the queen from an afflicted hive into a healthy hive, and if they'd put a healthy colony into a hive with a supposedly afflicted queen, and they hadn't."

Anderson says scientists will see things through their own specialty. Bacteriologists blame CCD on bacteria. Virologists blame it on a virus. And everyone, he says, sees it through the prism of not enough funding. "All the articles you read about CCD come back to getting improved funding for bee research," he says.

At the time *The New Yorker* article came out, Anderson was most alarmed at the author's implication, tucked casually into two sentences, that CCD was something that could be blamed on imported bees. Now that notion is in the open. Earlier this month, the US journal *Science* published a paper by a team headed by Dr Diana Cox-Foster, an insect immunologist from Pennsylvania State University. The team, which looked at the DNA sequencing of the sampled bees, along with the mites, viruses and other organisms on them, claim there is an association between CCD and a virus called Israeli Acute Paralysis Virus—and that the virus has been found in imported Australian bees.

"The implication is very damaging for Australia," says Anderson. The journal's editors asked him to respond, and he

questioned the samples used, wondering how the team could be sure the bees were from CCD-affected colonies, given the case definition for CCD is still so loose. "The definition is almost the same as used to describe pesticide poisoning of honeybee colonies," he says.

Of the paper's implication that imported Australian bees may be to blame for America's CCD problem, he says: "For a start, that particular virus [Israeli Acute Paralysis Virus] has been found in hives not suffering from CCD. And it wasn't found in 16 per cent of the CCD-suspect samples."

But he is most alarmed about the paper's assertion that unusual colony declines began in the US in 2004—coincidentally, the year Australia started exporting honeybees there. "CCD wasn't even known then," he almost splutters. "And if Aussie bees were responsible for CCD, then why is there no CCD in Australia? This is about politics."

There have been sudden puzzling disappearances of US bee colonies before, dating back to 1897, and more recently to the '60s and '70s. And every winter their bee colonies decline, due to poor management and the effects of parasitic mites like *Varroa*, say Anderson and others. There's even a name for it: Fall Dwindle. This last winter, with its higher losses, came after a poor summer; the bees went into hibernation with low body protein and low honey and pollen stores. Others note that commercial beekeepers in the US habitually feed their bees with sugar syrups. Antibiotics, which can eventually lower resistance, are also widely used, as are pesticides. Plus, if the bees are exposed only to commercial crops, they don't get the balanced nutrition they might if they could fly around more flowers and weeds.

Anderson won't be convinced CCD really exists until he sees how the US bees fare this coming northern winter. His money is still on Varroa as the most serious pathogen of the European Honeybee in the US. The world's honeybee colonies have declined by 25 per cent since the mite arrived, according to the US department of agriculture. In the US, since Varroa's arrival in 1987 colonies have dropped by half, from 5 million to fewer than 2.5 million.

Varroa makes a fiercely clever enemy. Anderson is more than a little mesmerised by the itchy, 2mm-wide mite simply because of its extraordinary ability to adapt. The bee-lover in him might fear it, but the scientist in him can't resist admiring the organism's ingenuity. Once in the hive, for instance, it dives into a honeycomb cell and heads straight for the food supply at the cell's bottom, left there for one of the queen bee's eggs. Bees can smell the mite, so the intruder, which has no eyes but uses sensory hairs and organs, dives deep into the honey so its scent disappears. It then puts up a kind of periscope. Its reproductive cycle, which takes place in that cell with the bee larva, is just as complicated and ingenious.

The breakthrough will come when we can breed bees which are Varroa-resistant. Anderson says there is a chemical signal on the European Honeybee which the mite takes as its cue to reproduce. Via careful breeding, he wants to produce a honeybee that emits a signal the mite can't read. It's genetic science, and Anderson is now looking around for funding.

But, at 56, he is also thinking of retiring, and there's no one to replace him.

Our bee industry seems to be in two minds about its future. On one hand, the arrival of *Varroa destructor* will bring, well, destruction to the honeybee. Miticides to control it in managed hives will drive up costs by at least 30 per cent. It will also end Australia's desirable status as a pesticide-free honey producer and a Varroa-free zone for breeding. On the other hand, as *Varroa* kills the ferals, it will make commercial honeybees more valuable for pollination. There is already a plan to set up an industry-driven group—tentatively titled Pollination Australia—to better represent the interests of pollination-dependent groups. The Rural Industries Research and Development Corporation has been funded to prepare a business plan.

But the claims in *Science* will be an emotional blow to the bee industry, insiders agree. People will think—mistakenly—something has been hidden, said one government official. And in the US, there could be calls for a trade ban. It could badly affect the bee export trade. There are other problems, too. Drought has affected nectar flows. Cheap honey is being imported from China and Argentina. And creeping urbanisation means less nectar-rich bush.

Some have never forgiven the European Honeybee—our "feral" honeybee—for being an exotic, not a native. In Queensland, Premier Peter Beattie has vowed that by 2024, honeybee hives will be banned from the newly created national parks in the southeast—a loss of 800,000ha. Some environmentalists say they even look forward to *Varroa* killing off feral honeybees because they rob native fauna, like fruitbats, snakes and native birds of both nectar and nesting places. Others are devotees of our many delicate native bees.

Denis Anderson, though, argues the European Honeybee is now naturalised: "It's probably quite true that originally it caused the extinction of some species, but now it's in balance. It's part of the ecosystem." He wonders what will happen if the honeybee is suddenly pulled out. And Max Whitten, a former chief of the CSIRO's entomology division, adds: "At the time Beattie made his announcement in 2004, he probably thought it was just a small industry; he thought he could wear the flak."

Now, instead, with the headlines on *Varroa* and CCD, honeybees are becoming the international science world's equivalent of Princess Di: threatened, beautiful, undervalued and attacked on all sides.

At least comedian and actor Jerry Seinfeld has perfect timing. His animated film, *Bee Movie*, comes out late this year. It's about a bee who tires of making honey—and then discovers the reason bees have to work so hard is that greedy, unconscionable humans have stolen their honey for centuries.

Whether it's a plague killing our bees, *Varroa* mites or just our toxic 21st-century ways, it's hard not to conclude that what is really killing our honeybees is neglect and indifference.

And lack of respect.

Club Contacts & Beekeeping Specialty Groups

WHANGAREI BEE CLUB
Meets: 1st Saturday each month (except January)
Time: 10.00 am, wet or fine (we are keen)

Contact: Mike Maunder
Phone: 09 437 5847
Arthur Tucker
Phone: 09 438 4283
Kevin & Melissa Wallace
Phone: 09 423 8642 (Wellsford)

AUCKLAND BEEKEEPERS CLUB INC
Meets 1st Saturday monthly at Unitec, Pt Chevalier, Auckland.

Contact: Carol Downer, President
Phone: 09 376 6376
Email: fairy-angel-peewee@xtra.co.nz

FRANKLIN BEEKEEPERS CLUB
Meets second Sunday of each month at 10.00 am for a cuppa and discussion. 10.30 am open hives.

Contact: Peter Biland
Phone: 09 294 8365

WAIKATO DOMESTIC BEEKEEPERS ASSOCIATION

Meets every third Thursday at Hillcrest High School, Community Room, Masters Ave., Hamilton, 7.30 pm.

Contact: the Secretary
Phone: 07 853 6304

HAWKE'S BAY BRANCH

Meets generally on the second Monday of the second month at 7.30 pm, Arataki, Havelock North

Contact: Mary-Anne Thomason
Phone: 06 855 8038

TARANAKI BEEKEEPING CLUB

Contact: Stephen Black
685 Uruti Road RD 48, Urenui
Phone: 06 752 6860

WANGANUI BEEKEEPERS CLUB
Meets on the second Wednesday of the month.

Contact: Neil Farrer
Phone 06 343 6248

MANAWATU BEEKEEPERS CLUB
Meets every 4th Thursday in the month at Newbury Hall, SH3, Palmerston North

Contact: James Gellen
55 Bruce Road
Levin
Phone 06 368 8553
E-mail: james.gellen@paradise.net.nz

WAIRARAPA HOBBYIST BEEKEEPERS CLUB
Meets 2nd Sunday of month (except January) at Norfolk Road, Masterton at 1.30 pm.

Convenors: Diana and Neale Braithwaite
Phone: 06 308 9101
Fax: 06 308 9171

WELLINGTON BEEKEEPERS ASSOCIATION
Meets every second Monday of the month (except January) in Johnsonville. All welcome.

Contact: John Burnet
21 Kiwi Cres, Tawa, Wellington 5028
Phone: 04 232 7863
Email: johnburnet@xtra.co.nz

MARLBOROUGH BEEKEEPERS ASSOCIATION

Contacts: Darren Clifford, President
829 Taylor Pass Rd, RD4, Blenheim
Phone: 03 577 6955

Mark Biddington, Secretary
8 Belvue Crescent, Blenheim
Phone: 03 578 9746

NORTH CANTERBURY BEEKEEPERS CLUB
Meets the second Monday of April, June, August and October

Contact: Mrs Hobson
Phone: 03 312 7587
Email: n.hobson@slingshot.co.nz

CHRISTCHURCH HOBBYIST CLUB
Meets on the first Saturday of each month, August to May, except in January for which it is the second Saturday. The site is at 681 Cashmere Road, commencing at 1.30 pm

Contact: Jeff Robinson
64 Cobra Street Christchurch 3.
Phone: 03 322 5392
Email: alpinebee@hotmail.com

SOUTH CANTERBURY REGION

Contact: Peter Lyttle
Phone: 03 693 9189

DUNEDIN BEEKEEPERS CLUB
Meets on the first Saturday in the month September–April, (except January) at 1.30 pm. The venue varies so check phone or email contact below.

Contact Club Secretary: Margaret Storer
Phone: 03 415-7256
Email: flour-mill@xtra.co.nz

ACTIVE MANUKA HONEY ASSOCIATION (INC)

Contact: Moira Haddrell, Chairperson
P O Box 862, Cambridge
Phone: 64 7 827 3286
Email: info@haddrells.co.nz

or

Denise Tryer-Harding, brand manager
P O Box 19-334, Hamilton
Phone: (07) 957 9999 or 0800 747 377
Email: dharding@piperpat.com

NZ COMB PRODUCERS ASSOCIATION

Contact: John Wright
Phone: 09 236 0628

NZ HONEY BEE POLLINATION ASSOCIATION

Contact: Russell Berry
Phone: 07 366 6111

NZ HONEY PACKERS AND EXPORTERS ASSOCIATION INC
Contact: Allen McCaw
Phone: 03 417 7198
Contact: Mary-Anne Thomason
Phone: 06 855 8038

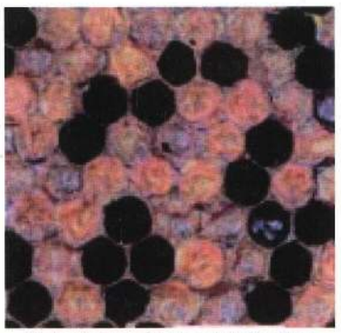
NZ QUEEN PRODUCERS ASSOCIATION

Contact: Russell Berry
Phone: 07 366 6111

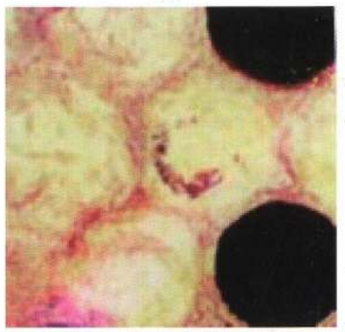
www.nba.org.nz

Is your group or Branch missing from here? Or have your details changed? Please contact the National Beekeepers' Association—inside front cover.

Unfinished cappings of healthy brood (Yellowed)

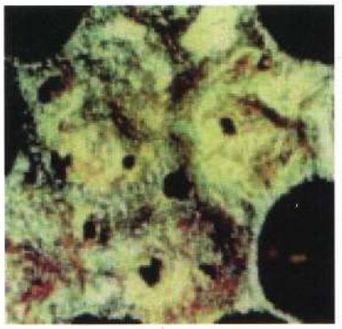


Cappings of brood infected with AFB

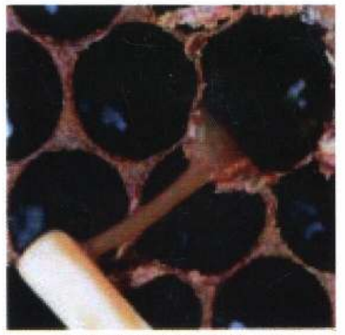


Bee chewing apart prior to emerging

AFB diseased larvae



Holes in cappings of brood infected with AFB



AFB "Ropiness" test

PMS larva with varroa

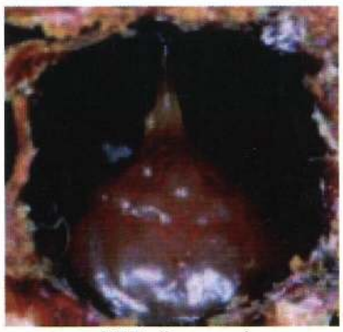
AFB - Older, darker, diseased pupa

Removing PMS larva

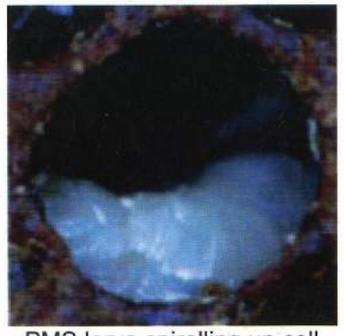
Chalkbrood - White mummy

Healthy prepupa

Sacbrood - Coffee coloured larva



AFB diseased Pupa with tongue



PMS larva spiralling up cell

Sacbrood - Swollen larva